CHINA'S
ECONOMIC STABILIZATION
AND RECONSTRUCTION

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AND RECONSTRUCTION

by D. K. Lieu

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FOREWORD

As a contribution to the research program and conference documentation of the Institute of Pacific Relations, the writer has been asked to write a book on the general subject of economic reconstruction in China. It happens that the writer has compiled a report for the Research Department of the Central Bank of China on more or less the same subject, which is therefore drawn upon to a large extent in writing the present volume. The manuscript was intended to be ready in March 1947, but current developments in China and suggestions from various friends have necessitated many additions to and revisions of the original draft, with the result that it was not completed earlier. As the question of economic stabilization is closely connected with that of economic reconstruction, much emphasis is laid upon the former and many chapters are devoted to its discussion. Consequently the title of the book has also been changed to its present one.

This volume was at first intended to be a purely factual study, but, at the suggestion of some members of the Institute of Pacific Relations, some subjective treatment has been included. It provides a perspective to the problems considered, and shows how they are approached from a Chinese viewpoint. As the writer was in the interior of China throughout the war, and had the opportunity of tackling many of the problems at first hand, this experience has been drawn upon in discussing the topics concerned. At the same time, the opinions of other Chinese, as expressed in newspaper and magazine articles, or at academic discussion groups, have been taken into account, whenever possible or necessary. Little originality is, however, claimed for the treatment, and much less profundity.

Although the writer has been connected with various government offices, the present volume is written from an academic point of view, and does not reflect the views or policies of these offices. Thousands of years of tradition have given academic people in China a certain privileged status, on account of which they may, in spite of their official positions, voice their opinions freely. Besides, the writer is not a member of any political party, and his views are therefore non-partisan.

As to the sources of information which have been drawn upon, it is unavoidable, in view of the lack of published data on many topics, that they are not always in the nature of publications. Many data are obtained directly from the government offices concerned, in the form of hand-written statements or tables. Others are given verbally by the responsible officials. Still others are unpublished material which the writer has read, or which he or his research workers have collected. Even when they are in the form of documents, these are often restricted, and permission has been obtained to use only those facts and figures which are given here. In such circumstances, it is impossible to give footnotes which satisfy all requirements of documentation, yet their omission might raise questions about the authenticity of the information. Therefore, in spite of advice to the contrary, the writer has retained the footnotes as they are.

The writer is grateful to Messrs. W. L. Holland, P. S. Kao, S. W. Liu and the China Institute of Pacific Relations for arranging to have this volume published. Sincere appreciation is due to Drs. J. Lossing Buck, Joseph S. Gould, Luther Harr, Howard S. Piquet, Frank M. Tamagna, and Messrs. W. L. Holland, Y. C. Koo, T. Y. Liu and Y. T. Shen for their valuable suggestions and criticisms. It may be mentioned that Mr. Koo, who is now Chinese Executive Director of the International Fund, was the man who carried out the New Currency System in 1935 and the measure of collecting the land tax in kind during the war.

Though the book is published with the cooperation of the China Institute of Pacific Relations and the Sino-International Economic Research Center, neither of these organizations is to be held responsible for the facts or views presented. For these the writer accepts sole responsibility.

D. K. LIEU

Washington, D. C.
July 12, 1947.

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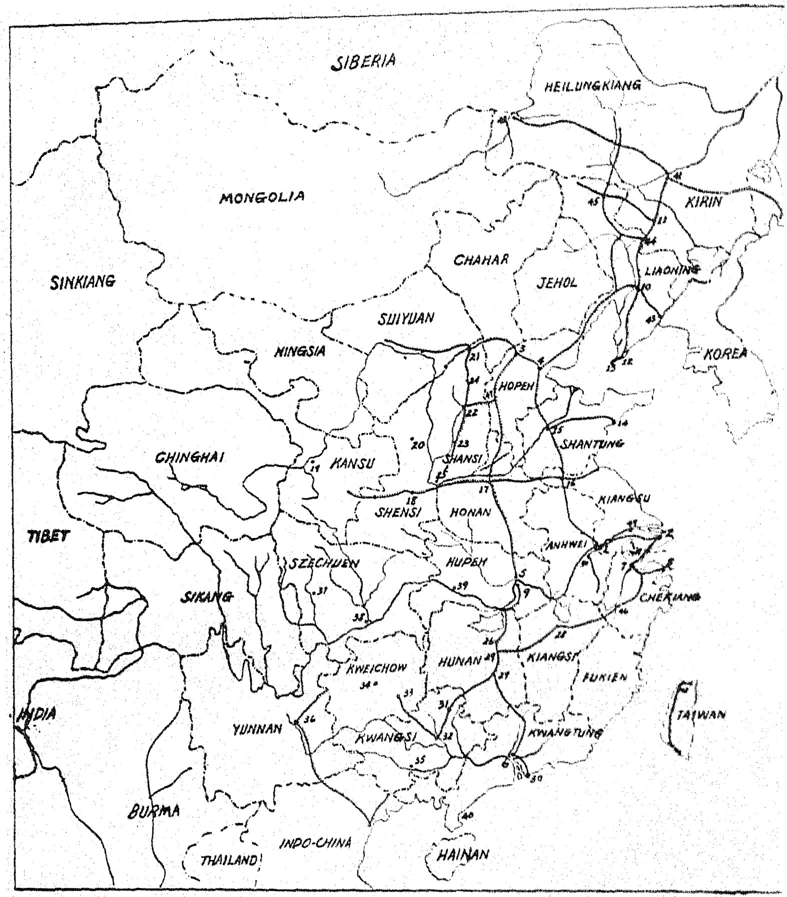
CHINA'S ECONOMIC STABILIZATION AND RECONSTRUCTION

CHINA



(Figures in map refer to cities listed below.)

1. Nanking
2. Shanghai
3. Peiping
4. Tientsin
5. Hankow
6. Canton
7. Hangchow
8. Ningpo
9. Wuchang
10. Shenyang (Mukden)
11. Changchun
12. Dairen
13. Port Arthur
14. Tsingtao
15. Tsinan
16. Hsuchow
17. Chengchow
18. Sian
19. Lanchow
20. Yenan
21. Tatung
22. Taiyuan
23. Linfeng
24. Hsinhsien
25. Puchow
26. Changsha
27. Henyang
28. Nanchang
29. Chuchow
30. Hongkong
31. Kweilin
32. Liuchow
33. Tuyun
34. Kweiyang
35. Nanning
36. Kunming
37. Chengtu
38. Chungking
39. Ichang
40. Kwangchowan
41. Harbin
42. Manchouli
43. Antung
44. Szepingkai
45. Taonan
46. Chuhsien
47. Chenting
48. Taipei
49. Kiangyin
50. Wuhu

CHAPTER I

INTRODUCTION

AFTER WORLD WAR II, most countries had to go through a process of economic reconstruction. In the United Nations, a Sub-Commission on Economic Reconstruction of Devastated Areas in Europe was formed, which later resulted in the organization of a special Commission, while a similar one for the Far East is, at the time of writing, meeting in Shanghai. However, in the present volume, the term is used in a broader sense, and is not limited to the reconstruction of devastated areas only. According to some plans, reconstruction is to start where rehabilitation has left off, and this is apparently the reason why the United Nations Relief and Rehabilitation Administration and the International Bank for Reconstruction and Development have been so named. It has even been planned that rehabilitation work will only restore the economic conditions of the nations affected by the war to the pre-war level, while the work to raise them above that level belongs to the Bank. As a matter of fact, such a clear-cut distinction is not easy to make, and hence in this volume the term reconstruction will be used to include rehabilitation of productive and other facilities as well as all constructive measures which will promote economic development in general.

As far as China is concerned, it is necessary to know her economic background before we can discuss intelligently the necessary measures for economic reconstruction. This is particularly true about her agriculture, to which much attention has been drawn abroad, but about which many facts are not equally well known. The result is a distorted picture in which certain points are over-emphasized, while the significance of others is not fully appreciated. Fortunately, there have been many studies made by both Chinese and foreign research workers and the Preliminary Report of the China-United States Agricultural Mission, which visited China last year, has supplied us with the latest account. Sometimes, however, even these studies and reports are not sufficient; one has to know the psychology of the farmers as well as of the landlords in order to get the correct perspective. Similarly, it holds true with the industrialists, laborers, and all other economic classes when other economic problems are discussed.

Not being a technical man, I do not intend to show what kind of fertilizers or farm machinery will be best for a certain type of land, how many iron and steel mills or how many miles of railways should be constructed in the country, the quality of the various kinds of natural resources and how they may be exploited—in short, all the details that would be necessary in making concrete plans for economic reconstruction. For the same reason, no attempt is made to discuss the relative merits of various plans that have already been made. Instead, I will confine myself to the most important economic problems and their possible solutions, with a view to promoting the general economic development of the country and the social welfare of the people.

In considering such economic problems, one must be guided by a definite economic policy. The Chinese Government naturally has its policy, but in this volume it is not meant to outline that policy. Rather the object is to explain the views of Chinese economists on this subject, and try to consider the pros and cons from an academic standpoint. Such views are often diametrically opposite to one another, in which case a choice must be made and reasons given for the choice. As a criterion for making such a choice, the ultimate objective of all economic policies has to be considered first. Unfortunately, there are also two diametrically opposite views about the objective itself, and a definite stand has to be taken from the very beginning. Once this stand is made clear, other questions are comparatively easy to settle. The discussion of policy, though confined to a few main questions, may in some cases appear to be too far-fetched, yet, unless these questions be first settled, it would be very difficult to consider the multifarious problems and their solutions. Each problem may be solved in many different ways, and it is only with the guidance of a definite policy that the advocacy of certain particular solutions can be justified.

Some of these problems are considered basic, because they had been present for many years, before the war. These are divided into two groups: problems connected with agriculture and those related to industrialization. By the latter is meant a gradual change from a preponderantly agricultural economy to a balanced development along all lines, requiring the establishment of modern manufacturing industries, modern mining enterprises, modern means of transportation, etc., along with the modernization of agriculture. Most of these problems have to do with economic reconstruction, but they cannot be solved merely by the execution of some technical plans, however well conceived these may be. There are questions of tradition, social psychology, economic behavior, etc., imponderables which cannot be expressed in terms of figures.

Superimposed on the basic problems are the more urgent ones created by the war. The need for relief is of course one of the latter, but as this volume is concerned with economic stabilization and reconstruction, that question will not be taken into account. Besides, it would involve a discussion of how many people require relief and how much is needed for each person, which will lead to such technical questions as the number of calories required for nutrition, etc., etc. So the discussion will be confined to that of the rising price level and the conditions that have produced this result. Special emphasis has been laid on limited productive capacity, shortage of supply of essential goods and lack of transportation facilities. This is not to belittle the importance of currency inflation, to which a special chapter is devoted, but as this book deals with both economic stabilization and reconstruction, these matters have a direct bearing on the subject. Moreover, unless such conditions are greatly improved, measures for currency deflation alone will not be sufficient.

Solution of both the basic and the urgent problems involves to a significant extent questions concerning her international economic relations. For her economic reconstruction China must have modern equipment of all kinds, much of which must be imported. She also requires large quantities of consumers' goods to stabilize her prices. Yet her exports cannot be easily increased, because their markets are more limited since the end of the war. Foreign exchange resources, both governmental and private, have been largely exhausted to make up for this discrepancy, and for some time to come, her balance of payments will remain in a state of disequilibrium. Japanese reparations, which could have been of great help to the situation, are both slow and of such a nature that they cannot solve her urgent problems of instability, nor can they meet all the requirements of her program of reconstruction. Hence, in the sixth and eighth chapters, other solutions will be proposed to cope with the situation, and both short- and long-run considerations with regard to foreign investments will be discussed.

In a book of this size, it is naturally impossible to discuss all the questions connected with economic stabilization and reconstruction, or all aspects of the questions which are included. Therefore, it is necessary to confine the discussions to what are considered the most important ones. As no economic history has yet been written of war-time China, some brief accounts of war-time economic developments which have a bearing on the questions under discussion will also be given, because social and economic conditions usually develop gradually, and a statement of what has happened so far will help us to understand how they should be handled now. Facts and figures, so far as they are available and relevant, will be included in the account. Their interpretation as well as the proposed economic policy and specific solutions to various problems are entirely my personal views, and do not, unless specifically stated to the contrary, reflect those of the Chinese Government.

Since this volume deals only with economic questions, political topics will be left out of consideration. In the first place, it is not an economist's task to attempt to solve political problems. Secondly, the latter are so complicated at present that even a specialist in international politics cannot deal with them adequately in a small volume of this size. It is therefore considered better to take the political situation in China as the given data, or the background for the economic problems which we have to solve. This attitude can be easily justified. In discussing the economic problems of any country, we usually take its social, political and historical background as it is, and do not attempt to consider how its social and political problems should be solved in order to effect a more complete solution of its economic ones. Yet the importance of the former are not thereby ignored nor belittled. Hence in the following no mention will be made of political questions in China unless there are certain controversies involving the economic problems under discussion.[1]

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[1] In this volume the word "dollar" and the sign $ are used to refer to the Chinese dollar, unless it is specifically stated otherwise.

CHAPTER II

CHINA'S ECONOMIC BACKGROUND

AGRICULTURE

CHINA IS PRIMARILY an agricultural nation. About seventy-five per cent of her population is agricultural, and derives a living from land. It means that approximately 337.5 million people out of a total population of 450 million are farmers and their dependents.[1] Also most of them grow cereals, vegetables and other food crops, although in recent decades, due to the growing demand for industrial raw materials, the acreage cultivated for cotton and other non-food crops has increased. Because internal transportation is difficult, and the inhabitants have to be supplied with foodstuffs locally, there is no extensive area in which non-food crops alone are grown. There is some degree of self-sufficiency in foodstuffs in most areas, although the degree depends upon the density of the population, the fertility of the soil, and accessibility to other areas.

To give a better idea of the situation in most parts of the country, every farmer has small pieces of land on which he grows the kind of cereal which constitutes the principal foodstuff of the region—rice, wheat, millet, kaoliang or whatever it may be—and vegetables and other crops are often planted after the main or cereal crop is harvested. In the rice region he usually has a water buffalo to pull the plow that tills the land, while in the wheat region the yellow ox takes the place of the buffalo. Some also raise a few cattle for the sake of their meat, while most farmers raise some pigs, goats and poultry. These are generally not for their own consumption, but are to be sold on the market. Where there are plenty of small streams, brooks and ponds, the farmers also raise fish and supply the market with fresh-water fish.

Besides the production of these foodstuffs, the farmers of certain regions also raise certain special products which have figured prominently in China's export trade. Where the land is suitable for the planting of mulberry trees, as in Kiangsu, Chekiang, Kwangtung and Szechuen, sericulture becomes an important occupation, and the income the farmer receives from this source often exceeds the income from his crops.[2] In Shantung and the southern part of Manchuria, tussah silkworms are raised and fed with the leaves of the tussah tree, thus producing pongee silk for both domestic and foreign consumption. The growing of tung trees which produce the well-known tung oil is also a subsidiary crop of the farmer, for such trees are generally grown by the side of the fields, individually or in small groves. Tea is another important contribution of the farmer to the export trade of China. In all these cases, the products were originally intended for home consumption, but have been exported when there is a foreign demand for them.

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[1] *The Statistical Abstract of China,* 1945 edition, gives a total population of 454,665,734 and an agricultural population of approximately 328,858,000, which results in a ratio of 72 per cent, but prewar data generally gave between 74 and 76 per cent. The 1947 figures, as shown in Appendix I, give 461,006,285 as the total population.

Although the farmer turns out many kinds of products, his farm is usually very small in size. Pre-war sample studies show that one-third of all farm holdings in China was below ten *mow* (or about one and a half acres) and three-fourths below thirty *mow* (or about five acres).[3] These small holdings are further divided up into smaller parcels, which are often not adjacent to one another. This situation is due to the Chinese system of equal inheritance. If a farmer has five acres and four sons, then at his death each of his sons will inherit one and a quarter acres. Since the quality of the land is often not quite the same in different parts of his holding, it is cut up in such a way that each son will receive not only the same quantity, but also with as little difference in quality as possible. This process started centuries ago, so that our farmer with his five acres of land already has it in many separate parcels, and each of his four sons receives a quarter of each parcel. Under such a system of inheritance, it is easy to see why the land holdings are so minutely divided and scattered.

LAND TENURE SYSTEM

No mention of the tenure system has been made so far because the rural population of China consists preponderantly of owner-operators. About fifty per cent of all farmers own their land, and more than 25 per cent are part-owners. The latter are usually energetic peasants who either rent some land, in addition to what they possess themselves, in order to increase their source of income, or who have saved some money as tenants and buy other land as their own property, in order to be more independent. As to the landlords, there are very few large ones, and a person who owns 50 to 100 acres would be included in that category, while a farm of that size is hardly considered large at all in America and many countries in Europe. Some landlords are farmers who rent out a part of their land because they do not have enough hands to cultivate it. If a landlord is not a farmer, the first generation may know something about farming, but his children usually have to depend upon the *kwan-chwang* or farm manager to look after their holdings. Where the holding is large, according to the Chinese standard, these second and third generations become spoiled, squander their income, and even get into debt. Then they will sell their land, which sometimes gets into the hands of their own tenants. The latter sometimes may request their landlord to sell some parcels of land to them, even when the landlord does not need the money, so as to connect up the separate parcels which they are cultivating, when they are in a position to buy and when the relationship between the two parties is cordial. I have known some friends and relatives who have disposed of a part of their land in this manner, and have also known some tenants who have first become part owners and then owners of all the land they cultivate.

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[2] *Rural Economy of Wuhsin,* a statistical study made under the direction of the writer, and published by the China Institute of Economic and Statistical Research, Shanghai, 1942, p. 35 (Chinese edition).

[3] *Memorandum on Economic Policy,* compiled in Chinese by the Bureau of National Economic Research, Nanking, 1936, Chapter on Agriculture, p. 263.

Another custom in China also favors the tenants. Property right in land is often divided into "surface" and "bottom" rights. The former refers to the fertility of the soil, which usually belongs to the tenant, while the latter refers to the land itself and belongs to the landlord. A tenant who has "surface rights" cannot be expelled unless he is so much in arrears in his rent payment that it exceeds the value of such rights. Usually the value of "surface rights" is a fixed amount, which is neither decided upon by the landlord nor by the tenant, but by long established usage. If a tenant does not want to rent the land any more, he can sell his "surface rights" to another tenant, and the landlord cannot object to the sale.

Over twenty years ago the writer sent trained investigators, who were familiar with agricultural questions, to study the situation, and found that this practice prevailed in many parts of the country. Where a crop-sharing system was in use, the share rent was usually after the pattern of 3:7 or 4:6, meaning that from 30 to 40 per cent of the produce—referring generally to the main crop only—went to the landlord, and the remainder to the tenant. In case the landlord supplied the draft animal, farm implements, fertilizers and seeds, the ratio was sometimes reversed, and known as reverse 3:7 or 4:6, thus giving the landlord the larger share.[4] Crop rent and cash rent vary with different localities and different grades of land. According to Buck's sample study of eleven localities, the percentage of total receipts taken by the landlord varied from 24.6 to 66.6, with an average of 40.5 per cent.[5] This of course took account of all kinds of rent payments. Later investigations by others seem to indicate that the situation has not changed much, which, in view of the very conservative nature of agriculture, especially Chinese agriculture, is quite to be expected. Of course there are landlords who exploit their tenants, but there are also many who have been farmers themselves, and who "reaching advanced years, render a service to society by affording wise guidance to young and inexperienced tenants." [6]

According to the estimates of both Chinese and foreign authorities on the subject, the extent of land utilization in China is quite low. An official estimate, made by the Directorate-General of Statistics of the National Government, gives the total area of cultivated land of 25 provinces at 1,248,781,000 *mow* (or about 200 million acres), amounting to approximately 10 per cent of the total area of the same territory. This is very much below the corresponding figures for most other countries, but the topographical features of the country would probably not allow any great extension of the cultivated area. Described in brief, the country may topographically be divided into two sections, and the dividing line runs from the Hsin An Mountains in Manchuria, through Jehol and Hopei, until it reaches the Tai Hang Mountains between Hopei and Shansi. At the southern end of the latter the line crosses the Yellow River to the Ching Ling and Ta Pa Shan Mountains in Shansi and Hupeh, thence, across the Yangtze River, it runs through the various mountains in the west of Hunan and Kwangsi. To the east of this line, there are broad plains dotted here and there with comparatively low hills, but to its west, with the exception of the Chengtu Basin in Szechuen and some small river valleys in Shansi, Honan and Hupeh, the terrain is generally 1,000 or more feet above the sea level, which makes it unsuitable for cultivation for certain important crops.[7]

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[4] *Land Tenure System in China*, edited by D. K. Lieu (in Chinese), Taipingyang Book Company, 1924.

[5] *Chinese Farm Economy*, by J. L. Buck, Univ. of Chicago Press, Chicago, Illinois, 1930, p. 143.

[6] *Preliminary Report of the China-United States Agricultural Mission*, p. 2 of report on Farm Tenancy. (Mimeographed November, 1946, by U. S. Govt. Printing Office, Washington, D. C.)

Lack of adequate rainfall is another important factor which limits the cultivability of many sections of the country. South of the Yangtze River the annual rainfall is usually above 1,000 millimeters, but in the northwest it is considerably smaller, and some of the land is semi-arid.[8] Without expensive irrigation projects, most land in the latter region would be uncultivable. However, this need not mean that significant additions to the cultivated land cannot be expected, since the existing acreage is quite large, and a five per cent increase through irrigation and other forms of agricultural improvement, for instance, would mean an addition of 10 million acres. Besides, where the land is unfit for food or other principal crops, it may still be usable for other purposes, such as grazing. Since, to raise the living standard of the people, more meat and milk should be consumed in China than have been so far, the extension of pasture land should be one of the objects of her post-war development.

MINERAL RESOURCES AND TRANSPORTATION FACILITIES

In mineral resources China has quite large resources of certain kinds, notably coal. A pre-war estimate gave a total coal reserve of 243,669 million metric tons.[9] Of total world production, China's annual production of wolfram before the war constituted 40 per cent, and of antimony about 70 per cent. The estimated reserves of these two minerals were 949,489 and 3,677,040 tons respectively.[10] The Chinese tin mines of Yunnan are located in the most important tin-producing region of the world, which includes Malaya and the Dutch East Indies, although the pre-war annual production in China was only about 8,000 tons. Production of these three minerals during the war has been considerably increased, on account of the Lend-Lease and loan Agreements.

For a country to be properly industrialized, both iron and coal are necessary, and the pre-war estimate of China's iron reserve is rather discouraging, being only 1,206,437,570 tons.[11] However, this estimate is not final, since the surveys were more or less limited to regions readily accessible by the then available means of transportation. Even so, the figure was 256 million tons higher than a previous estimate made by the same office. During the war, since the National Capital was temporarily moved to Chungking, more extensive surveys were made in Szechuen and the neighboring provinces, and the iron reserve for Szechuen alone, which was estimated at one million tons in the report referred to above, has been raised many-fold. Rich deposits have been discovered in Sikang, to the west of Szechuen, and the estimate for one single area reaches the figure of 30 million tons.[12] In the report mentioned above, there was no estimate for that province at all.

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[7] *Memorandum on Economic Policy, op. cit.,* Chapter on Agriculture, pp. 234, 224.

[8] *Ibid.,* p. 223.

[9] *General Statement on the Mining Industry,* published by the Chinese Geological Survey, Nanking, 1935, p. 4.

[10] *Ibid.,* pp. 207-209 and 236-239.

[11] *Ibid.,* p. 179. More recent figures about China's mineral resources are given in Appendix II.

Similarly, the oil resources of China had always been greatly under-estimated. In the 5th edition of the General Statement on the Mining Industry, the total reserve, based on an estimate made by the Standard Oil Company of America and supplementary data collected by the Chinese Geological Survey, was given at 4,337 million barrels of 42 gallons each. It was not then known that large oil basins were in existence in Kansu, Sinkiang and other northwestern provinces besides Shensi. At present, a single mine in Kansu, operated by the National Resources Commission, produces as much petroleum as was usually imported into China before the war, which is several thousand times the 1934 figure for that province.[13] Yet for lack of adequate equipment, even the present production is not at full capacity.

Due to the removal of the National Capital and the special attention paid to the exploitation of natural resources during the war, very extensive surveys have been carried out in Free China, and many estimates of mineral reserves have been revised upwards. Many new deposits have been found which were formerly overlooked.[14] As it would be tedious to enumerate all the minerals which are found in China, and give figures for their probable reserves and annual production, suffice it to state that this country, though not richly endowed in all kinds of minerals, has many varieties of them which are necessary for her economic development in the future. For lack of the necessary equipment and means of transportation, these minerals have not been fully exploited, and some of them have hardly been touched at all. Although this has delayed the process of industrialization in the past, it has also conserved these valuable resources for use in the future.

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[12] Information supplied by Mr. P. Y. Hu, the engineer in charge of the Sikang mines. The Szechuen iron reserve was ascertained to be 22,023,000 tons (*General Statement of the Mining Industry,* Chinese Geological Survey, Peipei, Szechuen, 7th edition, 1945, p. 89).

[13] Information supplied by Mr. Sun Yueh-chi, the engineer in charge of the Kansu oil field and refinery. The 7th edition of the *General Statement of the Mining Industry, op. cit.,* gives the oil reserve in Kansu at 60 million, and Sinkiang at 120 million tons.

[14] For instance, at Tungjen, Kweichow, 5 tons of mercury are now produced every month, and the total reserve is sufficient, according to estimates made by experts, to supply domestic and even world demand for scores of years. (Chinese News Service, New York, April 4, 1947.)

Modern economic development has proceeded hand in hand with the provision of transportation facilities, with which China has been very inadequately supplied. Before the war she had only 9,398 kilometers of railways operated by the National Government, which excluded the Chinese Eastern, the South Manchuria, and the Yunnan-Tonkin lines which were "conceded" to foreign interests. Similarly, the Chekiang-Kiangsi railway owned by a private company, several lines operated by the provincial government of the Three Eastern Provinces, and many short industrial lines were not included in the figure. All in all, the total mileage could not much exceed 20,000 kilometers, which is certainly a very low figure for a country such as China.[15] Although the Lunghai line was extended after the war began, and new railways have been built from Hengyang (Hunan) to Kweilin (Kwangsi), from the latter city to Tuyun (Kweichow), and from Kunming (Yunnan) towards Kweiyang (Kweichow), some old ones have at the same time been destroyed on account of the war.

On the other hand, highway construction, which involves less expenses and the use of little imported materials, has progressed at a much quicker pace. While in 1921 there were only 1,185 kilometers of highways in the whole country, the figure went up to 96,345 kilometers in 1935, or an increase of over 80 fold.[16] The next year it was further increased to 115,702 kilometers, and since then war has prevented further construction in the occupied areas. In Free China the work has continued, and the addition, including the well-known Yunnan-Burma Highway, brought the total up to 126,743 kilometers in 1943, for the whole country, without taking into account any changes in the regions under Japanese occupation.[17] The main problem with highway transportation is the insufficient supply of motor trucks and oil, and although many kinds of substitutes, ranging from charcoal to alcohol, were used during the war, they are not quite as efficacious as gasoline, especially where the grading is steep, which is the case in most parts of the interior.

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[15] The total mileage of the National Railways is given for the year 1934, in the *China Year Book*, the *North-China Daily News & Herald*, Shanghai, 1936, p. 281. Additional data about private and concessioned lines, on which the estimate of total kilometrage is based, are taken from the Shun Pao Year Book of 1936, Shun Pao, Shanghai, pp. 960-61.

[16] *Ibid.*, p. 292.

Before the United States supplied China with the Liberty ships, the latter had had no ocean-going vessels, and of the small number of steamboats which plied along the coast or on the rivers, before the war, many were taken or destroyed by the Japanese. There were several airlines operated by two aviation companies, the CNAC and the CATC, and they have been extended to foreign lands since the war. However, the instruments of transportation—railway locomotives and wagons, steamships, motor trucks and airplanes—have mostly been worn out, and need to be repaired or replaced.

INDUSTRIAL DEVELOPMENT

Pre-war industrial development in China had been very slow, but since the beginning of the war, the Government has paid much attention to its promotion, and progress has been comparatively rapid. Nevertheless, industrial plant and equipment, with few exceptions, have been, like the instruments of transportation, worn out, and many of them will have to be scrapped. Since industrialization is sorely needed in China, and the development of the manufacturing industries holds the key position in the process, some details of their pre-war conditions and war-time growth will be given here.

To give some idea of China's pre-war industrial development, a table showing the number of factories, their capitalization, the number of workers, and the amount of horse power, for the various kinds of industries, is given below. The classification follows that of the International Labor Office. It is a statistical summary of an industrial survey conducted by the writer on behalf of the National Resources Commission in 1933. Although he made two other surveys for the same office on later dates—in 1936 and 1937—they were not quite so extensive, and cannot therefore represent the conditions in the whole country. Even in the 1933 survey, the important province of Liaoning was left out, because it was in South Manchuria, and had already been occupied by the Japanese.

The statistics are also incomplete in other respects. As the foreign factories in China at that time refused to supply any data to the survey, it was confined to Chinese factories alone. According to the Chinese law, a factory is a manufacturing establishment which uses motive power and employs 30 or more workers. Small establishments as well as those which did not use motive power were therefore not included in the survey. Moreover, on account of the difficulties in communications, some manufacturing establishments which should be regarded as factories, but which were not easily accessible to the field workers, were also left out. The number so omitted was not large, while smaller establishments do not contribute much to the process of industrialization, and their omission is not of much importance. However, the lack of data about foreign factories in China is something to be deplored, for many of them were very large. If these were disregarded, the survey covered about 90 per cent of all Chinese factories in the whole country. The total number of establishments covered was 2,435, employing about half a million workers. On the basis of the statistics collected, some of which are not given in Table I, a general idea of the characteristics of China's pre-war industrial development may be obtained.

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[17] Figures supplied by the Statistical Department of the Ministry of Communications, Chungking.

One characteristic of the industrial development at that time was that the factories were mostly concentrated in the coastal provinces, and particularly in the city of Shanghai. The latter alone had as many as 1,186 factories, or approximately a half of the total for the whole country. If Liaoning, an estimate for which province was available at that time, were included in the survey, the coastal provinces would claim some 90 per cent of China's industries. Since both the absolute and relative numbers given above refer only to factories owned by Chinese nationals, and since the foreign factories in China, which did not supply any data to the survey, were mostly located in Shanghai and along the seaboard, the percentages would have been much higher had the missing data been available. This certainly indicated a very unbalanced development in respect of the geographical distribution of the industries.

Similarly there was a lack of balance in the number of factories in the different industries. The light industries had some development, especially in the manufacture of textiles and foodstuffs. About one third of the total number, or 821 factories to be exact, was in the former, and there were 390 in the latter, industry. These two together accounted for one half of the total number. On the other hand, there were very few factories in the heavy and basic industries, some kinds of which were entirely non-existent. Although there were eight iron and steel mills in the area covered, only five were then in operation, the rest having been closed down. Even had all been in operation, the total number would have been too small. Of acid and soda factories there were only two of each kind in operation. There was not a single copper refinery, nor any plant for the refining of oil. Many other metallurgical and basic chemical industries were also lacking.

The average size of the factories was also very small. This may be shown in various ways. Since the total capitalization of the 2,435 factories was only $406 million in Chinese currency, it means that the average capitalization per factory was around $166,000. Converted into U. S. currency at the exchange rate then prevailing, it amounted to some U. S. $50,000 only. There were 612 factories operated by joint stock companies, the remaining being mainly operated by single proprietorships or partnerships, each having a very limited capital for the purpose.

Another indication of the size was the amount of motive power used. Altogether the factories employed only 507,300 horse-power, of which 139,407 represented power supplied by electric power plants. The average amount for each factory was slightly over 200 horse-power.

On account of their small capital, the factories were mostly unable to build their own plants, but had to rent them from others. In many cases, they were not specially built for manufacturing purposes, but were ordinary dwelling houses converted to industrial uses. Of the 2,435 factories, 1,368 rented their "plants," and 44 rented a part of them. Some 220 more factories also rented their sites. The average size of the sites was 27.5 *mow* (one *mow* being about 1/6 of an acre) and that of the plants a little over nine *mow*.

The average number of workers employed was also small. There were altogether 493,257 workers in the 2,435 factories, averaging 202 workers per factory. Of these 243,435 were female, and 47,060 child, workers, showing that they were more extensively employed than men.[18] The small size of the factories was a third characteristic of the pre-war industrial development, and the preponderance of female and child workers a fourth one.

WARTIME DEVELOPMENT

Since the war began in 1937, however, industrial development made rapid progress in Free China, that is, in the interior provinces of the West, Northwest and Southwest, and in those parts of the other provinces which were not occupied by the enemy. The total number of factories in Free China exceeded 3,700 in 1942, larger than the number of Chinese operated plants in the whole country in 1933. The total capitalization in 1942 approximated $2,000 million in Chinese currency, or about five times that in 1933. Although this was due partly to the rise in the general price level, yet, since in 1942 the Government had not permitted the factories to revaluate their fixed capital with reference to the rising prices, this indicates to a certain extent an increase in actual capital equipment. At the same time, however, as the total number of factory workers in Free China in 1942 was only about a half of the pre-war figure, it means that the industries were more heavily capitalized on the per worker basis.

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[18] All the above figures are taken from various tables in Volume II of D. K. Lieu, *Manufacturing Census of China of 1933* (in Chinese), Commercial Press, Shanghai, 1934.

One cause of the rapid industrial growth in Free China was the wholesale transfer of complete factories from the coastal provinces to the interior, through the transportation of their mechanical equipment. Under the guidance and with the help of the Government, the equipment of 639 factories and mines was so moved and installed in various parts of the interior, thus laying the foundation for the industrial development there.[19] New equipment was also added to the old wherever circumstances permitted, and many new factories were established with equipment imported from abroad or manufactured in the interior.

A healthy sign of the war-time industrial development was the growth of the heavy industries. There were more iron and steel works in the interior than there had been in the whole country before the war, although the capacity of some of them was rather limited. Before 1941 the steel works in the interior employed electric crucibles only, but since then some of them constructed Bessemer furnaces, and much larger quantities of steel were produced by this process. Successful experiments were made in using cold instead of hot blasts in smelting iron ore. Hand in hand with the growth of the iron and steel industries went the development of the machine-making industry. In 1942 there were 682 machine works of reasonable size, which were able to manufacture steam, gas and Diesel oil engines, boilers, air compressors, steam pumps, steam hammers, cranes, spindles and many other kinds of special machinery for the different industries. Lathes, drills and planing, shearing and milling machines were turned out in fairly large quantities, and the steel works were able to produce high-speed tool steel of good quality. Various kinds of bolts, nuts, gears, springs and herring bones were also manufactured in the interior.

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[19] Reports of the Industrial and Mining Adjustment Commission, Chungking, published during the war in Chinese.

Electric generators, dynamos, telegraph, telephone and radio receivers and transmitters, amplifiers, transformers, electric wire and electric light bulbs were among the principal products of another group of factories manufacturing electric machinery and appliances. If we compare 1942 with 1938, we find that the production of transformers increased 3½ times, that of generators 17½ times, and that of dynamos 123 times, during the short interval of four years. The credit was due mostly to factories operated by the Government, which generally had many branches in different parts of Free China, in order to supply the needs of the local industries. The total number of factories manufacturing electric appliances in Free China was in 1942 one and a half times the total in the whole country before the war.[20]

Another important advance in industrialization was the increase in the number as well as capacity of electric power plants in Free China. Before the war there were in the whole country altogether 450 such plants, if we leave out the ten operated by foreign firms. In 1942 there were 116 power plants in Free China alone, and their capacity had increased five-fold when compared with the pre-war figure for the same area. However, this increase was still insufficient to meet the needs of industrialization, and many factories experienced difficulties in obtaining adequate power supply from these plants.

In the case of the chemical industries there was also much development during the war. While in 1933 there were only a handful of acid and soda factories in the whole country, there were in 1942, in the interior alone, 31 of the former and 13 of the latter. The production of sulphuric acid in 1942 was about four times that in 1938 and of soda more than three and a half times. Many substitutes for gasoline and Diesel oil were manufactured in large quantities in the interior, in addition to the Kansu refinery which produced them from petroleum obtained in that province. In Szechuen, where cane sugar is extensively produced, distilleries made use of the molasses to manufacture alcohol. Vegetable and *tung* oil were used in other mills to turn out another type of substitute. One single company, which owned five oil mills, for instance, had a monthly productive capacity of 110 tons of Diesel oil, 11,000 gallons of gasoline and 8,700 gallons of lubricating oil.

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[20] The 1942 statistics and their comparison with 1936 and 1938 figures are based on the *Report on Industrial Statistics* for 1942, published by the Ministry of Economic Affairs, Chungking.

Since the Government laid special emphasis on the heavy and the basic chemical industries, and left the light industries mostly to private firms, the development of the latter was not as rapid as the former. Although there were 76 cotton and 70 flour mills in Free China, the two industries which had enjoyed the greatest development before the war, the productive capacity of these mills was very inadequate to meet the current demand. On the other hand, the importance of the state-owned industries could be shown by the percentage of their capitalization in the total capitalization of the following industries: Metallurgical industries, 90 per cent; power plants, 89 per cent; manufacturing of electric machinery and appliances, 89 per cent; chemical industries, 75 per cent; and machine-making industry (exclusive of electric machinery) 73 per cent. In the light industries, the percentages were much lower.[21]

Supplementing the industrial development in the form of factories owned by the Government or by private firms, the industrial cooperatives operated by the workers themselves with financial aid from the Government also made rapid progress. These latter were usually small workshops, but they were scattered all over Free China, and their combined production was fairly large. Started at the time when Wuhan was not yet lost to the enemy, this movement had grown until in 1942 there were altogether 1,596 such cooperatives in Free China, with a total membership of 22,237. The total value of their annual production was nearly $200 million. They helped a good deal in supplying the army and the civilian population with the things needed, such as army blankets and ordinary cotton cloth. Exactly one third of the cooperatives were engaged in spinning and weaving, and more than 20 per cent in manufacturing chemical products.[22]

From the brief account in the preceding paragraphs the trend of pre-war and war-time industrial development is quite apparent. Under the guidance of the Government, it has gone through an important process of reorientation. The growth of the heavy industries has overtaken that of the light industries. On the average all industries are more heavily capitalized than before the war, due probably to this more balanced growth, since the heavy industries generally need more capital than the light ones. There is also a better balancing between the different parts of the country, as the

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[21] *Report on Industrial Statistics,* of the Ministry of Economic Affairs, *op. cit.*

[22] Statistics supplied by the General Headquarters of the C.I.C.

TABLE I. CHINESE MANUFACTURING INDUSTRIES IN 1933 [23]

			Motive Power			*Workers*				
Industries	*Number of Factories*	*Capitalization (Chinese $)*	*Power Generated by Steam or Internal Combustion in the Factory (HP)*	*Electric Power Generated in the Factory (KW)*	*Electric Power Supplied by Electric Plant (HP)*	*Male*	*Female*	*Child*	*Total*	*Value of Products (Chinese $)*
Timber	18	1,115,175	490	...	577.50	1,127	82	42	1,251	3,268,600.38
Furniture	12	419,500	33.50	...	276	1,130	300	473	1,903	1,519,554.79
Metallurgical	33	2,690,750	1,350	300	372.	1,821	...	399	2,220	4,755,154.00
Machinery and metallic ware	306	16,549,708	5,272.83	2,707.30	5,528.97	14,445	1,767	5,533	21,745	32,876,251.36
Instruments of communication	55	19,004,411	8,534.40	4,586.60	2,627.73	14,996	...	1,056	16,052	22,352,150.39
Stone, cement, brick, earthen ware, etc.	112	29,184,299	33,304.83	18,899.00	1,696.93	14,285	601	1,474	16,360	29,996,419.68
Construction material	14	298,120	64	3.37	120.25	742	...	211	953	1,746,325.55
Water and electric supply	14	32,613,625	32,685	22,151	5,310.64	1,381	...	39	1,420	13,166,607.56
Chemicals	148	26,326,882	4,142.28	1,926.90	4,930.95	12,873	12,871	1,975	27,719	49,693,859.28
Textiles	821	166,828,298	103,825.18	50,169.81	75,876.87	84,767	187,947	29,758	302,472	483,585,167.89
Clothing and attire	141	6,006,076	176.50	22.50	2,329.09	5,184	8,889	1,158	15,231	27,425,346.67
Leather and rubber	84	5,339,839	1,971.50	72.60	7,376.67	6,373	7,912	230	14,515	30,530,805.41
Foodstuffs	390	68,380,190	25,234.33	2,867.65	24,644.57	26,762	20,781	1,175	48,718	361,587,390.42
Paper and printing	234	27,877,461	8,502.17	2,105.24	6,709.42	13,758	1,540	2,961	18,259	45,450,423.49
Apparatuses, ornaments, etc.	26	812,300	73	...	223.17	1,870	153	268	2,291	2,684,496.31
Miscellaneous	27	2,426,000	419	19.50	806.50	1,248	592	308	2,148	3,335,849.84
Total	2,435	406,872,634	226,078.52	105,831.47 *	139,407.26	202,762	243,435	47,060	493,257	1,113,974,413.02

* 1 kilowatt is equivalent to 1.34 horse power, hence the total of this column is equivalent to 141,814.17 HP.

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[23] D. K. Lieu, *Manufacturing Census of China of 1933, op. cit.*

TABLE II. CHINESE MANUFACTURING INDUSTRIES IN FREE CHINA IN 1942[24]

Industries	*Number of Factories*			*Capitalization (Chinese $)*	*Number of Workers*	*Motive Power (HP)*
	Total	*State Enterprises*	*Private Enterprises*			
Water and electric supply	123	60	63	143,414,236	4,618	51,213.00
Metallurgical industries	155	44	111	302,319,526	17,404	9,659.00
Metallic ware	160	7	153	23,304,200	8,291	2,064.00
Machinery	682	50	632	357,597,611	31,541	16,077.50
Electric machinery and appliances	98	23	75	93,044,850	7,197	8,561.50
Timber and construction material	49	4	45	5,668,362	1,839	582.00
Wood, stone and earthen ware	122	21	101	64,400,276	10,651	4,804.00
Chemicals	826	125	701	559,220,372	36,140	24,835.00
Foodstuffs	360	32	328	83,435,600	11,447	9,705.00
Textiles	788	245	543	290,508,705	93,265	15,452.50
Clothing and attire	147	8	139	11,044,040	9,241	160.25
Cultural articles	224	35	189	21,422,441	7,320	657.00
Miscellaneous	24	2	22	3,645,816	2,708	145.00
Total	3,758	656	3,102	1,959,026,035	241,662	143,915.75

war-time development took place in the interior where modern industries were very scarce before the war. Although the size of some of the war-time factories was even smaller than those before the war, there were also many larger ones. It had become quite common for one company to operate a few factories of the same or different kinds, and hence business organization was at least on a larger scale. While it is apparent that China has not yet attained the necessary degree of industrialization, she has gone one step further since the war began, and in the right direction. The development must proceed still further, and be extended to mining, communications, agriculture, etc.[25]

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[24] *Report on Industrial Statistics* of the Ministry of Economic Affairs for 1942, *op. cit.*

[25] War-time industrial development in the occupied area will be discussed in Chapter V.

TABLE III: CHINESE INDUSTRIAL COOPERATIVES IN FREE CHINA IN 1942 [26]

Industries	*North-western District*	*Szechuen-Sikang*	*Kiangsi-Fukien-Kwang-tung*	*Hunan-Kwangsi*	*Yunnan-Kwei-chow*	*Shansi-Honan*	*Chekiang-Anhwei*	*Total*	*Number of Coopera-tives as Percent-age of Total*	*Number of Members*	*Capital Subscribed $*	*Capital Paid Up $*	*Loans $*	*Value of Monthly Production $*
Machinery and metallic ware	12	5	19	8	3	3	5	55	3.4	959	781,585	163,541	1,411,975	1,124,068
Mining and metallurgy	73	8	21	..	..	8	..	110	6.8	951	212,723	144,323	156,016	69,751
Textiles	101	133	45	147	68	47	14	555	33.3	9,321	1,339,645	1,309,890	3,980,089	8,718,142
Clothing and attire	32	26	37	24	14	23	12	168	10.0	1,822	269,922	191,881	2,228,680	2,439,562
Chemicals	39	86	151	32	13	23	10	354	21.9	5,143	1,128,331	958,071	3,227,293	2,686,441
Foodstuffs	15	6	27	5	6	10	3	72	4.5	720	133,603	102,281	633,913	467,158
Cultural articles	7	6	12	2	1	6	2	43	2.6	750	153,213	108,665	760,465	551,025
Wood, stone and earthen ware	22	6	62	8	3	1	3	105	6.5	1,100	133,196	103,375	439,384	525,693
Communication	2	..	1	2	..	..	..	5	3.1	45	5,130	4,206	24,460	13,204
Miscellaneous	21	8	47	26	11	2	14	129	7.9	1,426	319,775	259,593	1,049,619	772,622
Total	324	284	429	254	119	123	63	1,596		22,237	4,477,123	3,345,826	13,911,894	17,367,666
Number of cooperatives as percentage of total	20.3	17.8	26.9	15.9	7.5	7.7	3.9		100					

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[26] Data supplied by the General Headquarters of the C.I.C.

CHAPTER III

QUESTIONS OF POLICY

FINAL OBJECTIVE

BEFORE WE PROCEED to discuss Chinese economic problems or programs of economic reconstruction, many questions of policy must be considered, and above all the final objective of all economic policies. During the war, in view of the quick victories achieved by the enemy in Chinese territory, it was advocated by many people that her primary objective after the war should be to strengthen her national defense. Since her resources are limited, she would have to devote them to the development of the heavy industries, the manufacture of munitions, the construction of strategic railways, etc. Self-sufficiency in foodstuffs and certain commodities for maintaining the population at the barest subsistence level was also stressed in this connection. Naturally her policy with regard to other matters would be affected by such an objective, but the above is sufficient to indicate its effect on her economic policy. However, as all peace-loving nations are at present striving to maintain world peace through collective action, over-emphasis on this point seems to be out of place.

A larger group of Chinese economists believe that the final objective should be to give the Chinese people fuller employment and a higher standard of living. This does not necessarily mean that national defense should be neglected, but that it should not overshadow the importance of the former. Since the former is the objective which most members of the United Nations are seeking to attain through that organization and its specialized agencies, as evidenced by the Atlantic Charter and similar documents, little argument need be advanced in its support. In a country like China, where the standard of living has been quite low, it is of even greater importance. Dr. Sun Yat-sen's Principle of People's Livelihood, one of the cardinal principles followed by the Chinese National Government, also emphasizes the same thing.

Once this objective is decided upon, it will serve as the criterion by which the advisability of various kinds of economic policies may be easily judged. If the standard of living of the people can be raised by keeping the nation preponderantly agricultural, or by some form of agrarian movement, then China should do so by all means. Or, if economic stabilization and reconstruction can be carried out entirely with her own resources, by some five year plan like that of the USSR, then the Russian example, as has been advocated by many Chinese politicians, should be followed. It would be a good thing to prove to the world that China is able to solve her own problems without external assistance. We shall see how either of these policies will attain the final objective mentioned above. At the present moment, we need not even think of raising the living standard of the people to a level higher than that before the war, but of just enabling the masses to maintain their livelihood.

SHOULD CHINA REMAIN PREDOMINANTLY AGRICULTURAL?

There is a good deal of difference of opinion with regard to the relative emphasis on agriculture or industry. Even in the early years of the Republic, under the Peiping regime, most Chinese were strongly in favor of putting agriculture before manufacturing industries. Their argument was that China had always been an agricultural country, and she had on that account been able to exist as an independent nation for 40 centuries. During the war, these proponents further argued that China was able to keep up her resistance because agriculture, unlike the manufacturing industries, is not concentrated in a few "nerve centers," which can be easily destroyed by aerial bombing or other military methods. Little did these people realize the importance of the war-time industrial development in the interior, of the Lend-Lease supplies, or the military advantage of the topography there. It was those supplies and the production of these industries that helped to keep up the resistance, and the topographical situation, which will be described in a following chapter, was responsible in keeping the Japanese invaders from occupying those interior provinces which were kept intact until the last moment.

Some Chinese and foreign observers have thought that China could follow the example of Denmark and raise her standard of living, while keeping herself predominantly agricultural. This example, however, is not applicable to China, because Denmark is a small country and has long-established foreign markets for its agricultural and poultry products. If the Chinese farmers produce more improved cotton and wheat than is necessary for domestic consumption, will they be able to compete with the cotton of America or the wheat of Canada and Australia? Besides, many Chinese agricultural products cannot find foreign markets. Rice is the principal agricultural product of China, but she used to import certain quantities from Burma, Siam and French Indo-China to make up her normal deficit of about 5%. These latter countries also supply their surpluses to India. If China should increase her production of rice, there would be practically no foreign market for it.[1] The Chinese people would consume more rice, but it could not be used to exchange for manufactured goods from abroad. For other products like *kaoliang* and certain special kinds of millet, which are also used as food grains by the Chinese, they can find no foreign market at all.

In a report of the Sub-Commission on Economic Reconstruction of Devastated Areas of the United Nations issued in September, 1946, the Danish authorities had supplied figures which showed that in 1939, 52% of her exports went to the United Kingdom and 23% to Germany, and with respect to some of her principal exports, like butter and eggs, there had been a sharp decline in the German demand. That may affect Danish national economy a good deal. I hardly think it wise for China to follow in the footsteps of Denmark, especially in view of the possible large quantities that improved Chinese agriculture would produce. This does not mean that China should not improve her agriculture; only that too much emphasis should not be laid on it.

Prices of many agricultural products are subject to violent fluctuations in the world markets. In the United States, when there were frequent recessions after the Great Depression, many agricultural crops were plowed under so as to reduce the total production. This New Deal measure may be criticized by some people, but it shows that the problem of agricultural over-production does exist. In a report prepared for the League of Nations, Ohlin and his colleagues pointed out that the fall of agricultural prices was one of the principal causes of the Great Depression of 1929.[2] In particular, they referred to the increase in wheat production due to the extension of the Canadian wheat belt northwards. If China should increase her agricultural production to an extent sufficient to raise the standard of living of her population, especially if she expected to export her surplus produce, the effort itself might defeat the purpose.

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[1] Japan's deficiency in rice was already taken into account by the pre-war production level.

[2] Bertil G. Ohlin, *The Course and Phases of the World Economic Depression*, Secretariat, League of Nations, Geneva, 1931, p. 293.

At least the net barter terms of trade would not be in her favor.

Several international conferences were held before the war to limit the production of agricultural products or to allocate their markets. While the United Nations stand for increased production in most lines, primary products, which are mostly those of agriculture or mining, are to be subject to limitations, and quite a few international commodity agreements are being negotiated. For a country with an extensive territory and a large population like China to remain predominantly agricultural will not only be of disadvantage to herself, but will also constitute a source of disturbance to the world economy.

A slight variation of the theme is to put agricultural improvement ahead of industrial development. Since 75 per cent of the Chinese population is agricultural, and since approximately 70 per cent of her pre-war exports were agricultural products, any increase in their production will, it is maintained, not only add considerably to the national income, but also increase her foreign exchange resources. While this line of reasoning seems to have much logic, it ignores the effect of increased production on prices and the close inter-relation between industrial development and agricultural improvement, which will be explained in a following chapter.

AGRARIAN MOVEMENT

As for an agrarian movement which consists only of a betterment of the conditions of the tenants at the expense of the landlords, it may enable a portion of the population to improve their living conditions, but will not solve the question as a whole. As has been pointed out in the preceding chapter, less than a quarter of those working on land in China are tenants pure and simple, while more than a quarter are part owners. The former will no doubt be benefited by this policy, but the amount of benefit received by the latter will depend on the proportion of land a part owner holds under tenure. As to the other half, who are owner-farmers, they will not be affected by it at all. Of course the agrarian movement may include increases to the holdings of all farmers, but where will the land needed for the purpose come from? It should be remembered that the total acreage owned by landlords is not large, and that the holdings of individual landlords are usually quite small. The total area of cultivated and cultivable land in the country may be put at 250 million acres, and the total agricultural population at 337,500,000. At six persons to the family, there would be

56 million such families, and the average holding, if we suppose that every farmer family would have a farm of exactly the same size as every other, would be only about four acres. It sets a limit to any re-distribution of land.

Moreover, the estates owned by large landlords are not necessarily located in regions where the farm holdings are generally small, so that they may be distributed among the neighboring farmers as well as to the original tenants. If the number of the latter is very large, there may be no land to be spared for the neighboring farmers, even when the estates are so located; if comparatively small, the chances are that the neighboring farmers have also fairly large holdings, which should not be further increased in size. It would require a complete re-shuffling of all holdings, as well as wholesale transfer of farmers and tenants from one locality to another, in order to achieve a fair redistribution of all land, as well as consolidation of all separate parcels into compact holdings. What has so far been done under the name of agrarian movement consists only of taking the land from landlords and others who do not support the movement and giving it to those who do. If the movement is carried out in this manner throughout the country, it is doubtful if the result will be equitable to all farmers concerned.

Above all, such a movement will not touch the agricultural and industrial laborers, handicraft workers and others whose conditions are no better than those of the tenants. Also it can not solve the pressing problem of unstable prices and rising cost of living.

In fact, the desirability of abolishing tenancy altogether is doubtful. According to many western agricultural economists, such as H. C. Taylor, W. J. Spillman, A. W. Ashby, G. S. Wehrwein, Wilson Gee, etc., the agricultural ladder is not necessarily a bad thing. A quotation from the last-named writer will make the point clear.

> "The theory of the agricultural ladder postulates that the typical farmer begins his career as a farm laborer, working for wages on his father's or some one else's farm; that after he has saved enough working capital to operate his own farm he takes the next step on the agricultural ladder and becomes a farm tenant; and that successfully operating as tenant, he acquires sufficient capital to buy his own farm, then stepping up to the estate of a farm owner. In the progress he serves a sort of apprenticeship, as it were, gaining desirable experience in handling a farm." [3]

With some writers the retired farmer or landlord is considered as the last step on the ladder.[4] It is apparent that some normal percentage of tenancy is desirable and therefore objection is usually limited to absentee landlords. By such landlords are meant those who not only do not live on the farm, but also contribute nothing to its improvement. In a democratic country, these landlords can only be dispossessed by giving them government bonds in exchange for their land, and then having it turned over to the tenants under a reasonable instalment repayment plan which should not require much more than what is being paid as rent, if possible, less. If the holding is very large, some property sales tax, which is provided in the Chinese tax laws, may be levied on the landlord.

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[3] Wilson Gee, *The Social Economics of Agriculture,* Macmillan Co., N. Y., 1932.

To increase the size of holdings of owner farmers, as well as to consolidate their separate parcels, no law fixing a minimum size of farms and no movement which confines itself to the transfer of land from landlords to tenants will be of any use. The solution lies in providing employment for the surplus agricultural population elsewhere. If the manufacturing industries, for instance, can offer better means of livelihood than farming, especially the cultivation of small pieces of land, many farmers, when their prejudice against such changes are overcome, will naturally be attracted to the industrial cities, and the process of fragmentation will stop of its own account. In the past, many young men from the rural districts in China have gone to the cities to work in the factories, on the railways, etc. Further development in these lines will produce greater effects. As they are usually the children of farmers, their income will help their parents to acquire larger holdings.

Another possibility is the adoption of the system of primogeniture, in place of equal division of inherited property. It would prevent the existing holdings from being further fragmented, but it would be against the Chinese sense of justice and fair play. As to further population increase in the agricultural districts due to the high birth rates, it will be discussed in a following chapter. Similarly, the desirability of collectivization of farms will be considered later, but it may be pointed out here that, from the testimonials of an impartial American observer in Soviet Russia, the system has not worked out very well, at least in the Ukraine.[5]

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[4] "The Agricultural Ladder in the United States," *Industrial and Labour Information,* Vol. XIV, No. 4, p. 124 (published by the I.L.O., Montreal, Canada).

[5] John Fischer, *Why They Behave Like Russians,* Harper and Brothers, New York, 1947, pp. 211-216. It is stated there that the Russian farmer puts more work into his own private garden plot of one to three acres, allowed him by the Soviet Government, and during the German invasion he saved his own livestock raised on the plot, and left that belonging to the collective farm to the invaders.

ECONOMIC PLANNING—ONE FORM

With regard to the question of following the Russian example in effecting economic reconstruction in China, it must be remembered that in executing her early five year plans, Russia had to curtail consumption on the part of the population, thus lowering its standard of living instead of raising it. Even in her post-war five year plan, efforts are directed mainly to the reconstruction of the heavy industries, and consumers' goods are scarce.[6] However, there have been strong advocates in China, who are not necessarily Communists, who believe in economic planning more or less after the Russian pattern. Foreign assistance cannot be depended upon, and if China wishes to solve her multitudinous economic problems, the Government, according to these advocates, must have wide control over economic activities, and direct them to the ends outlined in some prefabricated plans.

At the present moment, when economic conditions are very unstable, one form of planning has gained favor among certain circles. To start with, it requires a system of complete government monopoly of foreign trade. Since China needs capital goods for her economic reconstruction, the monopoly would enable her to apply her limited foreign exchange resources to the purchase of these goods, among which some discrimination should further be made in favor of those which produce essential commodities. Exports could also be easily promoted under the system, as the government monopoly does not have to consider costs and profits. It would pay for the exportable goods at prevailing or even higher prices in the domestic market, and sell them abroad at foreign market prices. If they are very much in demand abroad, the monopoly would be able to get better prices than competing private firms, but the main object would be to get as much foreign exchange as possible for reconstruction purposes, regardless of the net barter terms of trade. There would be no need to humor private trading firms, both Chinese and foreign, with the import of non-essential goods, for, according to these proponents, the former will never be satisfied unless China is ready to squander all her foreign exchange resources on imports, essential or otherwise.

Under such a system there would be no need to fix any rate of exchange. Goods would be bought and sold in the domestic market in the national currency, and abroad in the currencies of the countries concerned, and no link need be established between them.

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[6] *Ibid.*, pp. 36-38.

Two kinds of exports having the same price in China might be sold at widely different prices abroad, and vice versa. It would be similar to the system now in operation in Japan under Allied occupation, and what actually amounts to multiple exchange rates would be covered up by such operations. If Japan, a defeated aggressor in the war, may apply such a system in order to facilitate her transition to a more stable economy, the advocates of such measures maintain that China should at least be entitled to do the same. Of course, some of the foreign exchange so obtained by Japan is needed for the payment of the expenses of occupation, but China would be justified by the more urgent need of stabilizing her national economy, since the unstable conditions are the direct results of Japanese aggression. Only, in the case of China, the advocates want the government monopoly to operate not only at home, but also in foreign markets.

As will be shown in this volume, the importation of capital goods as well as certain essential consumers' goods, besides other measures to be carried out in the country, is absolutely necessary to China's economic reconstruction and the stabilization of her price level. Since the UNRRA and Lend-Lease supplies will either stop soon or be further limited in quantity in the future, and since foreign loans and business investments will at any rate be uncertain, there is something in the argument that China must find a way to increase her exports and control her imports both with regard to kind and to quantity. The quota system now in use is considered to be inadequate for the purpose, while an exchange rate that fluctuates according to market conditions will deteriorate all the time and encourage capital flight under one guise or another. Although, as a matter of principle, I do not agree with the proposal of a complete government monopoly in trade, it cannot be denied that such a system may promote economic stability and reconstruction.

Inside the country, the advocates of these proposals also want to have many kinds of economic control, and, if necessary, more government participation in various kinds of enterprises. Consumption would have to be strictly limited, even though the standard of living is already too low. China is to attain economic stability and push ahead in economic reconstruction, and disregard all other matters. To save foreign exchange resources, she would, on the one hand, increase the production of all essential goods, especially foodstuffs and cotton, and, on the other hand, limit their consumption to the quantities produced at home. In other words, she should try as far as possible to attain self-sufficiency in these goods. It is estimated that, if a certain program be successfully carried out, she would have enough cotton in the country to supply the necessary clothing material, although the insufficiency of the long lint variety would mean more widespread use of coarser cloth.

While these proposals are contrary to the trend of international developments, they have quite a number of advocates, who give them varying degrees of support. They have at least the merit of a clear-cut line of action, and for that reason have a strong appeal to many people. Although they are nationalistic, it would be wrong to link them with fascism, since it was the way the USSR carried out her economic plans.

AN ALTERNATIVE

To the majority of mature thinkers it is apparent that China could not have complete economic planning in the same way as the USSR has. It would mean a different form of government, a different economic system, and perhaps necessarily a different ideology, from what she used to have. Before the war, the Chinese Government had for tens of centuries followed a laissez-faire policy, and the Chinese people are used to that. They do not like interference from the Government, and when, during the war, many types of economic control failed to produce the expected results, the advocates of laissez-faire gained larger following, and they were not only opposed to economic planning of the Russian pattern, but also to the war-time control measures. Many who had thought such measures necessary on account of the war have also changed their opinion. In spite of that, some who follow the middle course recognize the fact that whatever little developmental work was done during the war was carried out by the Government, and they therefore believe that some kind of planning should be done and some degree of control exercised by it, although it is not expected that the Government should carry out all the plans itself, and have strict control over their execution.

Since China's object need not be self-sufficiency, the plans need not be fulfilled exactly according to the predetermined figures. Relatively small deficiencies can be made up with increased imports, while excessive production, unless the development has for some time become entirely unbalanced, is quite unlikely. The figures in the plans will only serve as objectives to be attained, and the lines of activities included as indications of their importance, so that both the Government and private entrepreneurs may know what to undertake and what quantities of production to strive for. If, in certain important lines, neither Chinese nor foreign capitalists show sufficient interest, because of heavy initial outlay and probably low returns, the Government may quite properly enter the field on its own account, even though these lines have not been reserved as state enterprises.

Regional planning has been much favored in the democratic countries, and China should do something of that kind, in view of the extensive areas that need development. In addition, there should be what I will call "key factor planning." Since the Government is not going to undertake all enterprises, and since it needs certain instruments with which it may guide the private entrepreneurs in their activities, it should be in control of certain key factors. These factors are credit and transportation facilities and power supply. The Government need not operate all banks, but if its own banks are in a position to influence the supply of credit, they can do much to promote economic development. During the war, the Joint Board of Four Government Banks supplied loans at a low rate of interest, and in that manner was able to promote the development of certain industries. Since there is practically no investment banking in China, the Government Banks should in the future join hands with private banks to form syndicates for the purpose.

With regard to transportation facilities and power supply, the Government can do much to promote economic development in the country if it has a good program for the construction of railways and electric power plants, and also retain some control over coastal and inland shipping through the China Merchants Steam Navigation Company. The railway and shipping lines may be made to pass through regions which have resources to be developed, and the power plants may be located in cities and towns where manufacturing industries can have access to markets and raw materials. Through the adoption of appropriate rates for freight transportation and power supply, as well as interest rates for the supply of credit to the essential industries and other private enterprises, the Government will be in a position to guide and encourage them according to the plan of economic reconstruction.[7]

HOW THE ALTERNATIVE PLAN WILL WORK

Of course the question may be raised as to the relative efficiency of state and private enterprises even in these lines. The answer, however, is not hard to supply. The Chinese Government does not intend to have a monopoly in banking, shipping, or power supply. Even in the matter of railways, it is only the trunk lines that have been reserved as state enterprises. There will be competition from private firms in the same fields, except perhaps in the case of railways, where the construction of parallel lines, should the Government allow it, would be a sheer waste of investment. The competition of such parallel lines, which may not be entirely avoidable if railway construction be left to private hands, has been found in the past history of the United States to be, for more reasons than one, highly undesirable.[8] Although it will also be uneconomical to have more than one power plant, and therefore competition in that field, in any locality, there is some sort of competition between neighboring localities, because a more efficient plant charging lower rates in one city can attract industries away from another. Through competition will the efficiency of the state enterprises be maintained.

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[7] In my Chinese book, *Economic Mobilization and Economic Control,* Commercial Press, Shanghai, 1935, I have discussed this form of key factor planning in detail.

Lest foreign enterprises in China should be suspicious of discrimination against them, the Government should make public regulations and rates governing its operations in these fields. So long as an enterprise is to be encouraged, it should enjoy certain special facilities, no matter to what nationality it belongs. For instance, if a specially low rate of interest be fixed for loans to cotton mills, to encourage that particular industry, both Chinese and foreign cotton mills should receive the same advantage. There is no objection to such measures as a matter of principle, since railway rates, for instance, always differ with different commodities. It is discrimination with regard to nationality that raises objections.

Some explanation may now be given as to how this form of planning will work. The Government should first decide as to what commodities are most essential to maintaining the livelihood of the people. At the beginning, these may be limited to a few things which are necessary for a bare subsistence level; let us say, food grains, a few other kind of foodstuffs, coal and cotton cloth. The total quantities needed of such commodities can be easily calculated, and efforts should be devoted to their production. All producers of these commodities would be encouraged by being supplied with adequate credit, transportation and other facilities. This does not mean that other industries will not be given such facilities, but only that the former will enjoy priority or better rates, which will be publicly announced.

Since there is a large demand for these commodities, the producers, with the provision of such facilities, will naturally do their best to meet it. The prices of these goods in various regions should be ascertained and broadcast from time to time over the radio stations, which will guide the merchants as to where the commodities may be bought and sold at a profit. At present there are wide discrepancies between prices of the same commodity in different places, part of which is due to lack of transportation facilities and part to high transportation costs. By supplying such facilities and lowering the costs, as well as giving the information about prices, the merchants can be depended upon to ship the commodities from the low price regions to the high price ones. If they still fail to do so in some cases, the Government should do the shipping itself, although that would hardly be necessary under the circumstances.

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[8] *Cf.* L. G. McPherson, *Railway Rate Making,* H. Holt and Co., New York, 1909.

Much has been said about the hoarding of goods by the merchants. It has been possible mainly because goods in the country cannot flow freely from one place to another. Yet, in spite of such conditions, even in the interior during the war, the price discrepancy was more governed by transportation costs than anything else, as will be shown in detail in a later chapter. It is not every merchant who has a stock to hoard, and those who have none will find it more profitable to do a legitimate trading business, and through their competition prices will go down and the hoarders will be compelled to disgorge. When prices are stabilized, this question will be of less importance.

The important thing about such planning is to concentrate all efforts on a few essential things. There has been too much diversion of efforts, and some degree of working at cross purposes. For instance, the Government Banks may be supplying credit to certain enterprises at low rates, while the transportation agencies may charge higher tariffs. Or some goods may enjoy priority on railways, when there are no ships to transport them to their final destination. The value of planning consists of coordinating all efforts to one common end, and when concentrated on a few things at the beginning, it would not be difficult to carry out. This does not necessarily mean that all other lines of production should be made to stand still, for the facilities, though not extensive, are not so limited in capacity as to serve only the few items in the plan.

From time to time the scope of planning may be extended to cover other industries and commodities, until production and consumption will increase in all sectors. For this reason I do not believe that China should at present make any five year or four year plan, but should be satisfied with planning from year to year.

SCOPE OF STATE ENTERPRISES

The Supreme National Defense Council passed, before the end of the war, resolutions delimitating the respective fields of government and private enterprises. Mints, arsenals, post and telegraph offices, trunk lines of railways and large hydro-electric power plants have been reserved for government operation. Post offices and mints have always been government enterprises in all countries, while in China, telegraph offices and trunk lines of railways have been in the same category. The abuses of private munition factories are quite well-known, although in some countries they have not yet been nationalized. H. G. Wells has cited many cases where wars have been stirred up by the private manufacturers of munitions, in order to create a larger demand for their products and increase their profits. In World War I, Germany was able to use English ammunition, and German manufacturers also supplied France with guns and shells to fight their own country.[9] The latter country had, before World War II, nationalized all munition plants, and since China has never had private factories in this industry, it is wise to keep them under government operation. Similarly, the Government should own the plants which manufacture bombers and other planes for the air force, if they are to be manufactured in the country.

Large hydro-electric power plants, such as that contemplated in the Yangtze River project, have much to do with regional planning, and they were better reserved as government enterprises. In fact, in view of their small size, the existence of most industries depends to a large extent on the supply of cheap electric power, and the Government can do much in promoting industrial development if it is free to set up power plants wherever it is found necessary. In Shanghai, for instance, 60 per cent of the power used in the industrial plants, according to two surveys made in 1931 and 1933, was furnished by the local power plants.[10] For the whole country, I made, in connection with the manufacturing census of 1933, a comparative study of the generating capacity of power plants in various cities and towns and the extent of industrial development in the same localities, and obtained a fairly good rank correlation between them, using either the value of production or the amount of capital to represent the latter.[11] Although that census did not include certain provinces, nor foreign factories in the treaty ports, the number of localities covered was quite large, and the correlation was closer when these ports were excluded. Since private capitalists are often too cautious in setting up power plants or extending existing ones, the Government should have a free hand in doing so, either on its own account or jointly with private capital. Its recent decision to remain in the field of public utilities and the heavy industries is therefore well justified.

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[9] H. G. Wells, *Work, Wealth and the Happiness of Mankind,* Doubleday, Doran & Co., Inc., Garden City, N. Y., 1931, p. 78.

[10] D. K. Lieu, *The Growth and Industrialization of Shanghai,* China Institute of Economic and Statistical Research, Shanghai, 1936, p. 102.

This recent decision has been reported in the Chinese News Service more than once, and the latest announcement is made in connection with another decision to turn over other government enterprises, mostly light industries, to private entrepreneurs. Mints would naturally not be thus handed over, while all the other kinds of enterprises enumerated in the two preceding paragraphs may be classified either as public utilities or as heavy industries. Since the latter have so much to do with national defense and economic reconstruction, and since private capital has proved insufficient for their development, it is necessary for the Government to pay special attention to them. However, it does not necessarily mean that the Government will, with the exception of the few enterprises specified by the Supreme National Defense Council, have a monopoly in these two lines.

Although in the United States, the term "public utilities" has become more and more confined to such things as water works, gas works, electric power plants, buses, street cars, etc., which serve individual cities, in China it is still used in the broad sense. Railways come foremost among such public utilities. At the same time improvement in agriculture as well as promotion of industrial development depends much on railway transportation. How the lack of such facilities in the interior handicapped China's efforts of resistance during the war and created serious economic problems will be discussed in a following chapter. On the positive side of the ledger, I found many years ago how the extension of railway lines had promoted economic development. Cities had sprung up and gained importance as industrial centers when they became junctions of two trunk railway lines, such as Tsinan and Hsuchow.[12] As to agriculture, the extension of cotton cultivation as well as its improvement in Shensi and the western part of Honan has been made possible by the construction of the Lunghai Railway. An interesting study, based on railway transportation statistics of many years, conducted by the National Resources Commission, shows how the extension of the railway in both directions increased year after year the quantity of cotton shipped towards the coast, where the cotton mills are mostly located, not to mention other products.[13]

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[11] This result was shown in a report to the National Resources Commission, Nanking, in 1934, but it was not published.

[12] Lieu, *China's Industries and Finance*, Bureau of Economic Information, Peking, 1927, p. 20.

POPULATION AND EMPLOYMENT

In a way, the choice of objectives, mentioned at the beginning of this chapter, also has its bearing on the population question. Those who believe that China must be prepared against any further aggression from other countries often advocate the maintenance of the present size of her population, if not to increase it. In almost every country which pays undue attention to military matters, encouragement to population growth is usual. This was the case with Japan and Germany before the present war. On the other hand, those who emphasize people's livelihood naturally want to raise their standard of living and limit the growth of population. From their point of view, the Chinese population is already too large relatively to her developed resources, and may even be too large with respect to her potential resources. If the size of the population were smaller, there is some possibility for production to catch up, thus raising the standard of living. It means birth control and similar measures.

Those who emphasize people's livelihood are naturally more interested in alleviating the suffering of the masses as far as possible, and to that end the death rate, especially the infant mortality rate, must be cut down. However, as shown by population authorities, when better sanitation conditions exist and the death rate decreases, it is very likely that the birth rate will show a relative increase for some time. There is usually a lag in the fall of the latter behind that of the former. With the development of industrialization, some people from the agricultural districts will be drawn away to the cities, but the space left by them may be made up with increasing births. It is therefore necessary to preach the doctrine of birth control in rural areas as well as in the cities.

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[13] The study was conducted by C. Sun, Director of the Statistics Department of the Commission, in 1934, but it was not intended for publication and therefore not published. In a Nanking correspondence to a Chinese daily—*The Chinese Journal*—of New York of September 20, 1947, it was reported that the National Economic Council had further reduced the scope of state enterprises to munition factories, enterprises which are monopolistic in nature (e.g., public utilities) and mines with limited reserves and having a bearing on national defense (referring probably to oil-fields, etc.).

Some foreign writers have even expressed apprehension at the prospect of a possible population explosion, due to this situation, in the Far East.[14] Although such a possibility cannot be ruled out entirely with respect to the whole area, it is most unlikely so far as China is concerned. In her past history, the only periods during which she undertook to conquer neighboring territories were when the country was ruled by foreign warlike races, as in the Yuan, or Mongol, dynasty. Being a peaceful race, the Chinese have by themselves seldom sought to carry out military aggression.

Leaving aside the political aspect of this question, the economic significance of a larger population is very great. If the net result of post-war economic reconstruction, which will naturally have to include improvement in sanitation, is to be the rise of a large number of industrial cities, with higher living standards there, and if the rural population cannot be relieved of its surplus, but remains at its present level of comparative poverty, then the program cannot be considered to be a success. Considerable efforts must be exerted, through education and publicity, to teach the Chinese farmers to limit the size of their family. Since one inducement to large families in such areas is the need of extra hands to help in the farm work, some other way of meeting this need, such as improved farm implements and the use of electric power in irrigation, etc., mentioned in the following chapter, has to be made available, if the educational campaign is to succeed at all. Or the plans should provide for factories in the smaller towns which utilize seasonal labor, so that, during busy farming seasons, these factory hands can go back to work on the land.[15]

In the United Nations, several agencies and commissions are working at promoting full employment all over the world. In a predominantly agricultural country, it is hard to say whether the people are fully employed or not, because the farmers can never be so all year round. There might be no unemployment in the sense used in industrialized countries, but there is still not sufficient employment to maintain a reasonable standard of living. The question of full employment in the cities will not be discussed in this connection, because it is the same everywhere in the world. In the agricultural areas, however, there need be more by-occupations to keep the farmers employed a greater part of the time during the year. These may or may not be exactly in the form of rural industries, but may, as will be pointed out in another chapter, take some other form like sericulture, handicraft, etc. The important thing is not that a person should be employed in a particular line or for a particular length of time during the year, but that he should be able to produce enough so as to maintain his livelihood at a higher level. In certain respects, this involves governmental work, especially in the field of health and sanitation, because the benefits of these measures, though they are not measured in terms of money, are in certain respects more valuable than monetary income.

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[14] Eugene Staley, "Some Problems of Economic Development of the Orient," a paper presented at the Princeton University Bicentennial Conference, Princeton, New Jersey, on "The Development of International Society" on October 11, 1946.

[15] On account of limited space, questions of tradition, social organization, etc., that have a bearing on the question cannot be discussed here.

CHAPTER IV

BASIC PROBLEMS OF ECONOMIC RECONSTRUCTION

THE BASIC PROBLEMS of present-day China are essentially the same as those which existed before the war, except that, during and since the war, new factors have been introduced, which have more complicated than improved the situation. Rather arbitrarily I will group these problems into those relating to agriculture, and those relating to industrialization. While the first group needs no explanation, by the second I mean to include all the problems confronting China in her attempt at changing her position from that of a preponderantly agricultural nation into one whose development is balanced between agriculture and handicrafts on the one hand, and modern manufacturing industries, modern mining enterprises and modern transportation facilities on the other.

AGRICULTURAL PROBLEMS OF A TECHNICAL NATURE

Cultivation in China is often said to be very intensive. If labor alone is considered, the statement is quite correct, because more man-hours are put into a given piece of land in China than in the highly industrialized countries. There is, however, very little application of capital, and even chemical fertilizers are not in general use. As the farms are small, available capital is scarce, and population density is high in many parts of the country, the farmers try their utmost to get as much as possible from their land. For this purpose all kinds of expedients are resorted to, such as rotation of crops, the inter-planting of one crop between others, etc. Some of these methods succeed in maintaining the fertility of the soil, but, on account of the inadequate application of fertilizers, the per acre yield is often below that of other countries where fertilizers are freely used.[1] Moreover, the nature of the Chinese fertilizers, usually consisting of human and animal manure, does not always suit the crop. Although bean-cakes, and in recent years, chemical fertilizers, have been used to some extent, their use is very limited, especially the latter. To supply nitrogen to the crops, a plant for the manufacture of ammonium sulphate was constructed at Pukow, on the bank of the Yangtze River opposite Nanking, but the war began before it started production, and the plant was partly destroyed by Japanese bombing. However, it has now been repaired and has started production. To supply the needs of Chinese agriculture, many more plants need to be built, for the production of both nitrogen and phosphorous fertilizers, in addition to what may be imported from abroad.

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[1] Some 40 years ago, Japan still used night soil extensively in the rice fields, but on account of the better preparation and larger quantities used, according to some agriculturists, the per acre yield was higher than in China.

In some regions much erosion of soil has taken place, and unless it is stopped by adequate measures, agricultural production will be greatly affected. Not being an agriculturist, I will not go into these questions in detail, nor into the technical aspects concerning quality improvement of agricultural products.

One point may be raised in connection with the latter, from an economic point of view. The Chinese Government, agricultural colleges, research organizations and experimentation stations have for many years tried to improve the quality of Chinese agricultural products. However, wherever they have succeeded on a large scale, it is usually due to the coming into existence of domestic markets for the improved products. For instance, when the cotton mills in China flourished some thirty years ago, there was a large demand for better grades of cotton, especially cotton of longer lint, and the farmers began to use American seeds and to learn improved methods of cultivation. Several improved strains of Chinese cotton were also extensively planted.[2] Another instance concerned tobacco, where the initiative was not taken by the Government or agricultural colleges, but by cigarette factories. The British-American Tobacco Company and the Nanyang Brothers Tobacco Company—the two largest in that industry in China—simply supplied imported Virginia seeds to the farmers in certain regions, notably certain districts in Honan, Anhwei and Shantung, with the guarantee that the whole crop would be bought up by these companies, and the farmers in these areas improved their crops accordingly.[3] These examples show what modern industries can do in connection with improvement of agriculture where the products are used by them as raw materials.

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[2] This conclusion is drawn from the results of my own investigations and from Dr. H. D. Fong's excellent book on the *Chinese Cotton Spinning and Weaving Industries* (in Chinese).

[3] Information obtained from these two companies and confirmed by my investigations in these tobacco producing regions when I was with the Bureau of Economic Information.

The small size of Chinese farms militates against the introduction of modern agricultural machinery. In some cases it is physically impossible, and in others entirely uneconomical, to use tractors, cultivators, harvesters, combines, etc., on small strips of land which do not even amount to an acre in size. Collectivization, which has been proposed by some people as one way of making use of such machinery, will not work in China. The process would have to be carried out under compulsion, which would not be liked by the farmers. As the China-United States Agricultural Commission has very truly pointed out, the farmer will exert his utmost effort if the crops, or fixed portions of them, belong to him alone, and no amount of extollment will insure continuous exertion on his part if he works on a collective farm and has to share the fruits of his labor with others who fail to work equally hard. On the other hand, it will not be impossible for him to join in some form of cooperatives to use modern machinery provided the products of different farmers can be segregated.[4] Many kinds of cooperatives have been organized in the rural districts, and although the result of some of them is not satisfactory, the Chinese farmers have become used to this form of organization.

This does not mean to imply that no mechanical improvement should be made with regard to Chinese agricultural implements. Many of them are too antiquated, and badly need improvement. Some kinds of improved implements, simple and suitable to the small size of the farms, can be used by Chinese farmers to great advantage. In some more modernized parts of China, electric pumps have superseded those operated by man or animal power. They are owned by companies and rented to the farmers at so much per day or per hour, and thus no individual farmer need buy such a pump himself.[5] Similar arrangements can be made with respect to other machines, which is therefore another way of placing modern mechanical devices at the disposal of Chinese farmers.

Since the greatest enemies of the farmers are flood, drought and insect pests, the Government will have to undertake the task of preventing their recurrence, because it is beyond the power of the farmers themselves, either individually or cooperatively, to tackle these problems. This task involves technical questions which I will not attempt to discuss, but it may be mentioned that successful experiments have been made in North China in improving irrigation by means of wells. As to insect pests, the American Government has used airplanes to spray insecticides on the farms, and the method may be tried out in China. Since agricultural production is of such great importance to the country, this way of pest prevention will not be as expensive as it may at first appear to be.

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[4] *Preliminary Report of the China-United States Agricultural Commission, op. cit.*

[5] Investigations made by the Bureau of Economic Information, Peiping.

TENANCY AND RURAL CREDIT

Some purely economic problems concerning Chinese agriculture may now be considered. Although the tenancy question is not as serious as is often taken to be, improvement of the system should nevertheless be carried out. Measures should not be applied indiscriminately to all parts of the country or even all parts of a province or district, because both terms of tenure and rent often vary in different localities. Even where the rent is the same, say at so much money per *mow* or so many per cent of the crop, the underlying conditions are often quite different. In certain localities the tenants have to provide the draft animals, the farm implements, etc., while in others the landlords not only supply these things, but also pay for the repair of the implements, as well as of the barns in which the crops are stored. Tenants without "surface rights" are not in the same position as those having such rights. Where they have by-occupations, like sericulture, which yield them a handsome income very much out of proportion to the rent paid for the land on which the mulberry trees grow, they are also in a far better position than those in regions where there is no sericulture. It is true that the former have to do more work, but a good deal of their additional income is due to the peculiar nature of the soil. To require the landlords to collect the same amount of rent regardless of all these considerations would not be exactly fair to all parties concerned.

Besides such divergences in custom, there are also individual differences between landlords. Most landlords allow their tenants to reduce their rent in times of bad harvest, even when the payment is on an acreage basis, and also grant reductions when the latter have some special expenses to defray, in connection with marriages, deaths and sickness in the family.[6] Such reductions may often be quite substantial. Others may make loans to their tenants at reasonable interest rates. It would therefore not be wise for the Government to enforce a blanket reduction of rent to a certain level, or by a certain fixed percentage. The local tenure system should be taken into careful consideration, and its advantages and disadvan-

[6] Based on my own investigations and those of Professor J. Lossing Buck.

tages compared with those of the systems prevailing elsewhere. A rent ceiling may then be fixed for each district or part of a district according to these circumstances. Where landlords habitually and customarily allow reductions in rent, a higher ceiling may be fixed to enable the landlords to be generous, which usually helps to promote friendlier relationships between them and their tenants. It may look like charity, but, unless all land is owned by farmers, friendly relationship between landlord and tenant is highly desirable.

While there are landlords who exploit tenants, the worst kind of exploiters, both of tenants and small farmers, are the professional money lenders. These are racketeers who either live in the rural districts or in the nearby towns. They make their living out of the high interest rates they charge the poor farmers. In some sample studies made before the war, the rate of interest charged by these rural Shylocks was from 50 to 100 per cent per annum, or many times the rate on bank loans in the cities, which was from 10 to 15 per cent before the war. The latter rate was already too high as compared with that charged by the American banks, but the former was simply outrageous. As a result, once a farmer borrows from these money lenders, he often remains in their clutches all his life, and sometimes hands down the burden to his children and grandchildren. According to the same studies referred to above, approximately 39 per cent of the farmers were in debt, and the average amount of indebtedness was over one-third of their average annual income. Since the annual income of the Chinese farmer is small, it is naturally very difficult for him to save as much as one-third of it for the repayment of debt. If he succeeds in repaying one third or even one-half of the loan, the remaining amount, plus a year's interest at 50 to 100 per cent, would amount in the next year to the same figure, as if no repayment had been made at all. Fortunately, many farmers are able to borrow from their friends and relatives at much lower rates, but the average rate, according to the sample studies, was still 32 per cent.[7] Since the rate was much higher than that even in the cities, the farmers must therefore bear a heavier burden. Besides, the interest is usually payable once every ten days or in similar short periods, and there is compound interest on all arrears. Hence it is so easy to get deeper and deeper in debt, and so difficult to repay it in full.

While miserly landlords often lend money to their tenants on the same terms as the money lenders, they are comparatively few. It is to their interest to keep the tenants from being unduly burdened with debt, which would affect the latter's work on the farm, and thus also affect the rent to be collected, especially if it is on a share-cropping basis. Besides, the landlords, particularly the larger ones, have their social standing, and would not like to be regarded as belonging to the same class as the money lenders. It would be below their dignity to go from one tenant to another, every once in a while, to collect the interest payments. In some cases, however, landlords may lend to independent farmers, with the object of obtaining possession of their land, since these farmers, when they are heavily burdened with debt, are usually compelled to sell their land for debt settlement, but such scheming landlords are not very common. Although the money lenders also accept land as debt payment, their object is not to keep it as a form of property, but to sell it again at a profit. They have little interest in farm management, but want quick returns for their money.

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[7] J. L. Buck, *Land Utilization in China*, University of Chicago Press, 1937, pp. 461-466. In the original book the rate is given at 2.7 per cent per month.

To keep the poor farmers from falling into the clutches of the money lenders, rural cooperative societies have been formed in many localities. Some of them are not well organized, and admit the wrong kind of members, with the result that the money goes in the first instance into the hands of the very class of people which the societies are intended to eliminate. This is often due to the fact that the financial organization which supplies the funds has no knowledge of the rural conditions, and the men in charge of rural credit are too anxious to show results in the form of so many societies organized and so much money loaned out. The danger is particularly great in the case of governmental institutions, for private banks usually are more careful in handling their funds. However, most of the credit societies have done good work, and they should be extended all over the country so as to place cheap credit at the disposal of the farmers.

OTHER PROBLEMS OF AGRICULTURE

Another group of people who exploit the farmers are the merchants who buy their produce. The small farmers seldom know the intricacies of trading business, involving such things as the market prices of their products in the various cities and the transportation costs, and they have little bargaining power. On the part of the merchants, they can usually cooperate to keep the purchase price down. In a study of the marketing system of cotton, it is found that there are five or six kinds of middlemen through whose hands the commodity finds its way to the cotton mills in the large cities.[8] Every middleman gets his share of the profit, and the discrepancy between the selling price of the farmer and the buying price of the cotton mill is quite large. Even when the cotton mills send their own purchasing agents to the cotton production centers, they cannot do away entirely with some of the middlemen, and they also try to keep prices as low as the middlemen offer. A system of cooperative marketing will enable the farmers to receive more for their own products.

Besides the establishment of cooperative societies, the farmers also need legal protection against their exploiters. Those who have borrowed money on usurious terms need protection against the money lenders, while the tenants who are exploited by their landlords need protection against the latter. All disputes in the rural districts come before the district magistrates, according to the Chinese legal system, and these magistrates serve, in addition to their administrative duties, as judges in these matters. They should be specially trained to handle these disputes properly, and should be admonished to do their best to protect the weaker party. Lest some magistrates should fail to fulfill their duties in this respect, there should be circuit courts which should sit in different districts in the circuit by rotation, thus giving the farmers a chance to make appeals. According to the existing system, the appellate courts are all located in the larger cities, and are often inaccessible to the farmers.

In addition to these courts, the present practice of the Control Yuan in sending out their members to various parts of the country, to "find out the conditions of the local inhabitants," should be continued. Although they are not vested with judicial power, they may be more easy for the farmers to approach, since legal procedure need not be followed. Also the farmers are accustomed to such approach, because, before the establishment of the Republic, the emperors used to send special commissioners from time to time to different districts to see if the local inhabitants had any complaints to make against the magistrates or other people. Sometimes the *yu-shih* or "censors" took such trips on their own initiative, and made their reports to the emperor. If a city magistrate or some other government official was involved, a higher official or special commissioner would handle the case; otherwise, the magistrate would be instructed to see that justice were done. Since the members of the Control Yuan are supposed to perform the functions of the censors, it is their duty to discover local grievances, and impeach the misbehaving magistrates, although legal procedure has to be carried out through the courts.

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[8] An unpublished research report of the Kung Yih Institute of Industrial and Business Research, Chungking. Although the study was made in 1944, it was based mainly on pre-war data.

Farming is at best a part-time occupation, and a person cannot be expected to produce as much income by working only a few months as he can by working throughout the year. While many Chinese farmers have some by-occupation, it differs in different localities, and in some regions such by-occupations do not add much to their total income. In the sericultural regions, the farmers obtain more income from silk production, as has been mentioned before, but this by-occupation depends much on the climate and the adaptability of the soil to the growth of mulberry trees. In other regions the farmers buy cotton yarn and produce cloth with it. The rural districts of Nantung and Kaoyang have become well known for this product. In still others, knitted hosiery is produced with rented machines. A factory would rent out hand looms or hand-operated knitting machinery to the farmers, supply them with yarn, and buy the products at previously agreed prices. Usually the farmers are not required to pay for the yarn, but have to turn in so much cloth or hosiery per pound of the raw materials. In addition they receive something for their work, which practically amounts to wages, but at piece rate and varying to a certain extent according to the quality of the product. Or a firm may have no factory of its own, but depends for its production entirely on those farmers, while in all other respects the arrangement is the same.[9]

Of course there is also exploitation of the farmers in such cases, but the system is not inherently bad. The workmanship of the farmers may not be comparable to that of trained laborers, yet improvement is not impossible, especially if the firm or factory will take the trouble of training such farmers, and be fair in paying for the work on the basis of its quality. Pure handicraft wrought with hand tools, except those kinds which have some artistic value, cannot be expected to long survive the competition of factory products, but those made with hand-operated machines may, especially when they are intended for sale in other rural areas. Since the commission house system has long ago gone out of existence in the industrialized countries, it may seem to be anachronistic to advocate its extension in China. However, it will take many years to reduce the proportion of the agricultural to the total Chinese population, and this system may form a transitional stage through which the farmers will be acquainted with the handling of machinery. The processing of many kinds of agricultural products, such as the pressing of sugar canes, the canning of fruits, etc., will also be suitable for providing seasonal employment to the farmers.

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[9] Based on investigations of the Bureau of Economic Information and the China Institute of Economic and Statistical Research, Shanghai, under the direction of the writer.

During the war industrial cooperatives were organized by small groups of workers, and many of them produced good results.[10] This form of organization seems to be quite suitable to farmers who wish to do some manufacturing work as a side line. Most factories cannot take in seasonal workers, but seasonal production by such cooperatives should meet with no special difficulties. For instance, a small group of farmers may, with funds supplied by rural credit organizations, buy looms, hosiery-knitting equipment and other simple machinery, and produce on their own account. Their income from this source will naturally be larger than would be the case if the equipment and raw materials were supplied by factories or commercial firms.

Although some handicrafts have gone or will soon go out of existence, many can still be retained. The Chinese farmer will take much time to become scientifically or mechanically minded, but they often have an artistic sense, and production of the latter kind should be encouraged. It gives the worker a means of self expression, which is desirable from a sociological point of view. At the same time, such work will bring the farmer larger returns per man-hour than many other kinds of by-occupations.

The above discussion is not meant to cover all problems connected with Chinese agriculture, which are multifarious, but I have been obliged to limit my topics to those of which I have made some study myself.

PROBLEMS OF INDUSTRIALIZATION

With regard to industrialization, it has been predicted by both Chinese and foreign economists that China will be handicapped by her lack of adequate iron resources, which are essential to the development of the heavy industries.[11] Since these industries form the basis of all developments included in the process of industrialization, the handicap may be considered to be quite serious. However, these forecasts are based on the estimates of China's iron reserves made by the Chinese Geological Survey in 1935 or before, but the figures have been subjected to revision, as has already been pointed out.

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[10] For further details, see Table III of Chapter II.

[11] R. H. Tawney, *Land and Labor in China,* Allen & Unwin, London, 1932, pp. 133-134; J. B. Condliffe, *China To-day—Economic,* World Peace Foundation, Boston, 1932, p. 101.

By this it is not meant that China's iron resources will be adequate for her needs, even should rich deposits be continually discovered in the outlying regions. It is fully realized that the total quantity of iron deposits is insignificant as compared with that of the industrially advanced nations. The location of some of the deposits in regions not easily accessible by modern means of communications, and the unavailability of coking coal in the neighborhood of others, will diminish their value as factors in China's industrialization. Yet there is encouragement to be found in the case of the Soviet Union. The iron reserves of European Russia were estimated in 1935 at only about 60 per cent larger than those of China in the same year, and before the U. S. S. R. carried out her series of Five Year Plans, who had thought that important centers of the heavy industries could be established near Moscow.[12] But the U. S. S. R. is now industrialized, and if her industrialization is still incomparable to that of the United States, a good foundation has been laid for further development.

According to the various theories concerning the location of industries, conflicting conclusions may be drawn about the possibility of the development of the heavy industries in China. Predöhl, for instance, states that "iron industry usually goes to the sources of coal rather than the sources of iron." [13] Although this applies mainly to iron and coal resources in the same country, it could also be applied to neighboring countries between which the distance is not very great, and transportation is convenient. Thus India, which has more iron resources relatively to her coal reserve, as compared with China, may conceivably supply some iron ore to China to be smelted there. Similarly, the Philippine Islands have a fair amount of iron reserve, but her coal resources are rather insignificant, and cost of transportation to China's coastal provinces is not high. In fact, for many years before the war, Japan used to import Chinese iron ore, and a contract was in force by which a certain quantity of the ore of Tayeh, near Hankow, was shipped to Japan every year. If Japan, with barely 85 million tons of iron reserve, could build up her heavy industries as she had done, the chances for China in this line should certainly be much greater.[14]

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[12] The Russian figure is taken from the *General Statement on the Mining Industry, op. cit.*

[13] Andreas Predöhl, "The Theory of Location in Its Relation to General Economics," in the *Journal of Political Economy,* University of Chicago Press, 1928, pp. 371-390.

Another author, writing eleven years after Predöhl, states that the situation in the iron industry has reversed, and the industry goes to the sources of iron instead of coal.[15] If this be the recent trend of development, it would be more difficult for China to develop this industry. However, the example of Japan seems to show that there are at least exceptions to this trend, and the extensive use of scrap iron as raw material for the blast furnaces tends further to favor the countries having rich coal deposits. For, according to Weber's analysis, scrap iron would be what is called a "pure material," that is to say, a raw material which does not lose weight in the process of manufacture, and as such could be transported over long distances to the centers of the iron industry.[16] That Japan has imported large quantities of scrap iron, especially in the early years of the Sino-Japanese War, goes to the support of Weber's theory. There will be plenty of scrap iron in the highly industrialized countries like America which China may utilize to build up her heavy industries.

Moreover, to save iron and steel for military purposes, the use of plastics and ply wood, together with the process of cyclewelding, has been much extended in recent years. In many respects they have served as substitutes for this basic metal. There is a possibility that the industrialization process will in the future depend less on iron and steel than it did before. Similarly, further development of the newly invented gas turbine may make China's limited oil resources less important as a handicap to her industrialization. Although no extravagant hopes can be entertained for China's heavy industries, and they may never be in a position to manufacture products for export, yet fortunately, she has coal in abundance, and

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[14] The iron and coal resources of these Asiatic countries are, according to the *General Statement of the Mining Industry,* 1935, *op. cit.,* as follows: (in million tons):

	China	Japan	India	Philippine Islands
Coal	243,669	8,276	79,993	..
Iron	1,206	85	20,500	805

[15] S. R. Dennison, *The Location of Industries and the Depressed Areas,* Oxford University Press, London, 1939, p. 25.

[16] Alfred Weber, *Theory of the Location of Industries,* University of Chicago Press, 1929, p. 61.

on that foundation she may build her post-war industrial structure.[17]

INDUSTRIAL CAPITAL

What is most lacking in China is industrial capital. It has been estimated by one Chinese economist that the increase of such capital in China from 1912 to 1938 was at the rate of £5,518,696 a year, or, at the exchange rates then prevailing, approximately U. S. $27.5 million, or Chinese $85 million. This estimate is based on the value of machinery, industrial raw materials, rolling stock and other railway materials, etc., imported into China during that period.[18] It is probably a bit too low, since it does not include similar capital goods produced in the country, nor the cost of factory buildings, road beds, etc., which also represent industrial investments. Although China has been able to manufacture only a few kinds of machinery and machine parts, the value of such products amounted to $43,819,622 in 1933.[19] This item means an addition of some 50 per cent to the annual figure given above, at least for that particular year.

A much higher figure is arrived at in a recent estimate of China's national income, by another author. According to him, the annual increase of investments of the agricultural population was, for the period 1929–1934, $700 million in Chinese currency, and that of industry and trade (including all classes of people who do not derive their income from agriculture) $3,700 million. From this are deducted certain items, the propriety of which need not be considered here, and the net annual increase in investment became $3,900 million. This is nearly 45 times the first estimate, but as the author has pointed out himself, "whenever conjectures have to be made and errors unavoidable for lack of data, the assumptions are always so made as to yield a higher national income and a larger proportion of savings and capital formation." Such liberal estimates, when coupled with a very modest program of post-war industrialization, will provide for a set of "minimum conditions of the future efforts and privations which necessarily must be undergone by the Chinese people." [20]

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[17] H. D. Fong, in his *Post-War Industrialization of China,* National Planning Association, Washington, D. C., 1942, p. 76, expresses a similar opinion in the following words: "China's resources for industrialization, though not as rich as those of the United States, are sufficient to support a moderate degree of industrialization for many years to come."

[18] T. F. Koh, "National Capital in Relation to China's Industrialization," an article in Chinese which appeared in the magazine, *Economic Mobilization,* of December, 1940. An English version appeared in a data paper of the Institute of Pacific Relations, 1942.

[19] D. K. Lieu, *Manufacturing Census of China of 1933, op. cit.*

In the same study the total national income of China is given at $35,200 million in Chinese currency, which, in my opinion, is really too "liberal" an estimate. From statistical data from over thirty different sources, I have made a preliminary estimate of China's pre-war national income, and my figure is only about 60 per cent of that of the above quoted author.[21] On a per capita basis, my figure is about the same as that of Mr. P. S. Ou for the same year, although our methodology is quite different. If the total national income is nearer 20 than 35 billion dollars, the capital increase must be smaller too.

The greatest obstacle to capital accumulation is the almost uniformly low income of the farmers, who form such a large percentage of the total population. It is hard enough to keep them out of debt, let alone expect them to accumulate any savings. In the past, whatever accumulation there was, was done by the landlords, the merchants, and later on by the bankers and industrialists. Some study has been made by certain Chinese students of economics of the landlord-capitalists, but since the land holdings are not large, and the percentage of land held by landlords is small, the amount of capital from that source is certainly inadequate. It may be true in certain special districts where landlords have become capitalists, but to apply this term to them as a class in the whole of China is misleading. Merchants, on the other hand, have often accumulated more capital, because their business turn-over is quick, and there are wide discrepancies in prices in different parts of the country, making domestic commerce highly remunerative. It is their demand for additional capital, made effective by their ability to pay, that has kept the interest rate at such high levels in the country. Their profits are relatively large, and even when they operate with borrowed capital, they receive a nice income from their business. The development of the *piao-hao,* or native banks specializing in remittances, before the establishment of modern banks, bears witness to this statement. Some of them, like the salt merchants, who enjoy monopolistic privileges granted by the Government, are among the richest people in the country.

Since modern banks and industries were introduced into China, the former have usually made large profits, while some of the latter have, also. As the former, and the larger ones of the latter, category are generally incorporated, their profits are often plowed back into the business, and form a sort of corporate savings. These may not be large when compared with their American counterparts, but the amount per unit is much larger than that of the old-fashioned banks and business enterprises. It is a pity that the capital accumulated by the modern banks has not been made available to industries, except in the form of short term loans. Investment banking has not yet developed, and that is one line of activity which is absolutely necessary to the industrialization of the country.

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[20] Ta-chung Liu, *China's National Income,* 1931–1936, The Brookings Institution, Washington, D. C., 1946, p. 2.

[21] D. K. Lieu, *A Preliminary Estimate of China's National Income,* a mimeographed report of the Bureau of National Economic Research (in Chinese), Chungking, 1943.

Another prerequisite to industrialization, which is closely connected with investment banking, is the dealing of industrial securities on the stock exchange. Before the war, the active securities had been Government bonds, which were considered gilt-edged securities because payment of principal and interest was certain. Railway bonds, which form an important class of securities in the United States, were in China issued in foreign currencies, because the original loans were made by foreign firms, and not many Chinese investors were interested in them. As to industrial and mining stocks, the good ones were generally kept by the original subscribers, and seldom changed hands, while the bad ones could not be sold on the exchange, except during certain short periods of wild speculation.[22]

Although, during the war, the Chinese Government invested very heavily in industries in order to promote production, and there was a rapid growth of state capitalism, these state enterprises will, according to a recent decision of the Government, be turned over to private entrepreneurs. Further discussion of this subject will be reserved for a following chapter.

THE QUESTION OF CAPITAL GOODS

One problem involved in the program of industrialization concerns the supply of capital goods. Even though there may be sufficient domestic capital to carry out the program, many kinds of capital goods cannot be produced in China, but have to be imported from abroad. This requires an adequate supply of foreign exchange. Such exchange may be obtained from increased exports, but the possibility under the existing circumstances is not very great.

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[22] Based on personal investigations and many Chinese articles in the *Bankers' Weekly* of Shanghai.

Before the war, China had always had a passive balance of trade, which had mainly been made up with remittances of Chinese overseas. Since these remittances have diminished proportionally to the imports, the question as to how to pay for these capital goods arises.

Although I have made some estimates of China's post-war balance of payments, it will be out of place to discuss that question in detail here.[23] My conclusion is that, for the importation of the capital goods necessary for her industrialization, there are, besides exports and overseas remittances, four possible sources of supply of foreign exchange; namely, Japanese reparations, direct foreign investments, foreign loans from individual countries, and loans from the International Bank for Reconstruction and Development. The first will be a net inpayment, and will not involve outpayments later on, in the form of withdrawals of capital and profits, or repayment of principal and interest. However, the total amount of these reparations have not yet been agreed upon, and the capital goods used for the purpose cannot meet all the requirements of China's post-war economic reconstruction.

In the case of the three other sources, they are naturally more uncertain. Although direct investments need not be repaid, as are loans, the capital may be withdrawn if the foreign investors sell their interests to Chinese capitalists. It would then involve large outpayments in foreign exchange, and since the original investment will to a large extent consist of capital equipment, the withdrawal would amount to selling such equipment to Chinese entrepreneurs. If the enterprise produces goods which are not urgently needed by the Chinese people, the purchase of its equipment, in view of China's limited foreign exchange resources, will not necessarily be a desirable thing. Even when there will be no withdrawals of capital, the enterprises started by foreign investors may not fit into the plan of economic reconstruction. I do not oppose direct investments on this account, but only wish to point out their possible drawbacks.

If capital goods are to be obtained through loans, I believe that construction of railways and power plants will be most suitable projects.[24] When transportation becomes convenient, more Chinese products can be exported in exchange for other capital equipment, while power plants will help increase production. The equipment for important mines and industries may be supplied from any one of the above-mentioned sources. With regard to the possibility of loans and direct investments, it will be discussed in the last chapter.

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[23] D. K. Lieu, article on "China's Post-War Balance of Payments," in the *Monthly Magazine* of the Central Bank of China, Shanghai, Vol. I, No. 1, January, 1946.

[24] When I mentioned this point in some lectures at the University of Michigan in December 1946, some members in the audience considered the moment to be inopportune. As a matter of fact, my discussion does not refer to any particular moment, but to the nature of the project.

LABOR, TECHNIQUE AND MANAGEMENT

As to labor power, China has certainly an abundant supply. The Chinese laborer can be easily trained, and he can be quite efficient. A number of small mills in Shanghai and other cities have been established by Chinese laborers who have learned the manufacturing processes in foreign factories. Most workers in Chinese cotton mills, usually ignorant girls, are not trained by the management, but they learn from their friends and relatives by watching the latter at work in the mills, and later get their jobs in the same or other establishments.[25] During the war, the Yunnan Cotton Mill made an experiment by employing exclusively girl graduates of grade schools. Because they could read and write, they did better work than the girls in other mills.[26] Since the wage of factory workers is now higher than that of clerks, the experiment can be extended to other industries, and applied to both men and women, especially those which require more intelligence on the part of the workers.

With regard to the efficiency of Chinese laborers, it has been proved that it can be increased under proper management. For instance, before the war, the Japanese cotton mills in China paid better wages than the Chinese, had more strict supervision, and the production per worker was about thirty per cent higher than similar mills operated by the Chinese. In an American factory in Shanghai which made electric bulbs, it was found that the Chinese worker was as efficient as the American in the factories in the United States, and the comparative figures were published by that factory in an English paper in Shanghai. In a statistical study which I made many years ago in the Hanyang Iron Works, I found the efficiency of the laborers to be fairly high.[27]

Wages are low in China, and that is one factor in her favor. It has been shown by one author that the textiles industries in the Orient have already enjoyed some advantage over those in the

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[25] Investigations made by the China Institute of Economic and Statistical Research, Shanghai, under the direction of the writer.

[26] Based on personal investigations at the mill.

[27] D. K. Lieu, *China's Industry and Finance*, *op. cit.*, p. 201.

Occident on that account.[28] Although, during the discussion of the International Trade Organization Charter in London, the opinion was expressed that fair labor standards should be maintained, particularly in the case of production for export, it was not proposed that such standards should be uniform in all countries, but should be related to national productivity.[29] As long as industrial capital is insufficient in China, productivity cannot be increased over night, and cheap labor is therefore necessary to keep up production.

As to modern technique and know-how, China has certainly much to learn from the industrialized nations. This requires the training of Chinese engineers and technicians in up-to-date techniques. While, in certain lines, such training has to be done by sending the men abroad to work in the factories concerned, the number of such trainees cannot be very large. Special schools and classes have to be conducted in China, with, if necessary, foreign instructors. So long as the industrial equipment available in China is to a large extent antiquated, the training may have to be kept, for the time being, at a rather low level, for a highly technical man may have no opportunity to utilize his knowledge of complicated machinery which is not found in the country. It is only when up-to-date equipment becomes available that a demand will arise for highly technical men, and their knowledge will be of practical use. This question therefore is closely connected with that of the supply of capital goods discussed a few paragraphs back.

The great defect about Chinese industries does not lie with the laborer, but with the management. In the autobiography of the late Chinese industrial leader, Mr. H. Y. Moh, who received his education in the University of Illinois, it is stated that the department heads often know little about the industry. As General Manager and President of the Board of Directors of several cotton mills, Mr. Moh often had difficulty in appointing the right men to such posts. According to him, the Directors usually wanted men who had some social standing instead of those who knew the business, and when the two qualifications could not be combined, the latter was sacrificed for the sake of the former. If a well educated man like Mr. Moh could not in his position get the right men for his mills, the qualifications of department heads in factories which are managed by old-fashioned industrialists must naturally be even worse. Before the war, salaries in industrial establishments, except perhaps the general managers of very large factories, were often too low, and that was another reason why educated men were not attracted to industry. But this situation has changed a good deal since.

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[28] G. E. Hubbard, *Eastern Industrialization and Its Effects on the West*, Oxford University Press, London, 1935, pp. 2, 10, 187-192, 343 *et seq.*

[29] Report of the First Session of the Preparatory Committee of the United Nations Conference on Trade and Employment, United Nations, N. Y., October, 1946, Part II, Chapter I, Section D.

CAPITAL-LABOR RELATIONS

Another important weak link in the industrial chain is the quality of the foreman. In most factories, he is merely a labor contractor, responsible only for supplying a sufficient number of workers to work on a specified number of machines. The exact number is decided by the foreman himself, and he can engage or discharge workers at will. He knows the manufacturing process, but does not always take the trouble of training the workers. The management has no direct contact with the latter and does not care to know exactly how many of them are working in the factory. The actual manufacturing process is practically left to the foremen, and the people higher up are concerned only with the purchasing of raw materials, the sale of the finished products, etc. That is one reason why the managers usually emphasize the social standing of the department heads, for, with higher social standing, these department heads know more people, and can buy cheap and sell at advantageous prices. For the same reason, engineers often have very little to say about the running of the mills, because technical knowledge is not appreciated.[30]

In the last decade or two, the foreman system has undergone some change. Many mills have found it advisable to employ workers directly, and they want the foremen only to supervise the work. Hence "supervisors" have taken the place of "foremen," and they are often chosen from high-school graduates. Like the swinging of a pendulum, the movement has gone to the other extreme, because these supervisors are often ignorant of the manufacturing process, and are unable to supervise the work properly. They thus fail to command the respect of the workers. On account of the higher salaries, in recent years, many college graduates have been attracted to such posts, but they too are not sufficiently qualified. They may have learned the principles of business administration, but without special knowledge of the particular industry itself, they have often found the workers hard to handle.[31] An important problem for China is therefore the training of students for various industries, giving them a combination of knowledge of business administration and of manufacturing technique. This requires the establishment of many special vocational schools of various grades, to supply the different grades of men from foremen up to department heads. It would be useful even to those in the purchasing, sales and accounting departments to have some rudimentary knowledge of the manufacturing process, though not so much as those directly concerned with the manufacture of the product. I have been cost accountant in an iron and steel mill, and have found such knowledge useful in suggesting modifications of the cost records for accounting purposes.

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[30] Based on investigations made under the direction of the writer by the Bureau of Economic Information, the Bureau of National Economic Research and the China Institute of Economic and Statistical Research.

Capital labor relations of course need improvement. In pre-war days, the Government tried its best to settle labor disputes by mediation and arbitration, and these measures were quite successful in many cases, because the Chinese people usually prefer them to other means of settlement. Many disputes were settled before strikes were called, and both disputes and strikes had to do mostly with wages.[32] Till now, there have been no nation-wide strikes.

This does not mean that labor unions are unnecessary in China. On the contrary, their organization should be encouraged, as they enable the workers to do collective bargaining. However, abuse of power by labor leaders should be prevented by law, while at the same time adequate legal protection to labor should be provided for. China has factory laws and regulations about factory inspection. In my opinion there should be a general law requiring safety devices and comparatively sanitary conditions in mines, factories, and all other places where laborers work, and frequent and strict inspection should be made. No minimum wage law, however, can be enforced in China, for, if any practicable minimum is fixed, it is apt to be very low, and the minimum wage often has the tendency to be also the maximum. Especially at the present time it cannot be of any use, since wages have to be revised from time to time with the continually rising cost of living.

Similarly, child labor cannot yet be prohibited in China, because many children have to work for their own living, if not to help support their parents. What can be done is to specify the kind of work which should not be performed by children. A most objectionable practice on the part of many factories, handicrafts as well as commercial firms is to employ children and even young men as apprentices, giving them only food and lodging and a little pocket money. If the term of apprenticeship is not too long, it would be less objectionable, but usually it lasts two or three years, and is often extended under one excuse or another over longer periods. If the system cannot be entirely abolished, a reasonable time limit should be set to apprenticeship, and when a child or young man is able to do the work like a regular laborer, he should be given the regular wages.

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[31] According to statements of graduates of the Commerce School of National Chungking University, when the writer was Dean of the School. Many of these graduates found work in the factories.

[32] Pre-war statistical reports of the Bureau of Social Affairs of the Shanghai City Government.

There is an old Chinese practice among commercial firms which solves capital-labor questions in a most satisfactory way, and it may be easily adapted to the small-scale industries that are prevalent in China. According to this practice, those who supply the capital own a number of *tsai-ku* or "financial shares," and the employees own a number of shen-ku or "labor shares" (a literal translation would be "body shares"). The latter are not purchased by the employees with money, but are assigned to them in the contract as something that naturally belongs to them because they are employees of the firm. This privilege is of course not extended to the apprentices. Some of the more important employees may own as many shares as, or more shares than, those who supply small amounts of capital. Due to their ownership of such shares, these employees are not only entitled to shares in the profits, but also in the firm's assets and voice in the management. If the manager has contributed his capital to the firm, he owns both kinds of shares; otherwise, his "labor shares" are often larger than the "financial shares" owned by many "financial" partners. In case he decides to leave, he can sell his share in the firm's assets, proportional to the sum of the "financial" and "labor shares" which he owns. The good thing about this system is its acknowledgment of a joint partnership between capital and labor in the enterprise.

GEOGRAPHICAL DISTRIBUTION OF INDUSTRIES

Since, before the war, the geographical distribution of manufacturing industries in China was very unbalanced, and since, in spite of the fairly rapid development in the interior during the war years, the supply of manufactured products there was insufficient to meet the demand, many Chinese believe that, after the war, the process of industrialization in the interior provinces should be accelerated. Some, on the ground of national defense, go one step further and advocate that, in the coastal provinces, there should be only light industries, while all heavy industries should be located in the interior.

To start with, it must be pointed out that the location of industries cannot be entirely determined by law or government decree, but it is affected by economic factors which are beyond governmental control. Manufacturing industries must be located near the market or the source of supply of their raw materials. Several other factors, such as climate, the supply of labor, capital and power, etc., have also much bearing on the question, but market and raw materials are the chief determinants.[33] Although many new mineral deposits have recently been discovered in the interior, this region does not have a monopoly of them, but, on the contrary, is lacking in certain requisites of industrialization.[34] In the coastal provinces, and other regions near the wartime "front," there are natural resources useful to both the heavy and the light industries. Liaoning, Hopei, Chahar, Anhwei and Hupeh had all been occupied by the Japanese, but they have iron and coal which it would be most unwise to leave undeveloped and most uneconomical to transport to the interior provinces like Szechuen, Yunnan or Kansu for use by the heavy industries to be established there. Most mineral ores are weight-losing materials, as Alfred Weber calls them, for their metallic content is often low, and cannot stand the transportation cost of long haulage.[35] In an analysis of the production cost of pig iron at Hanyang, some years ago, the writer found that the losses of the iron mill there were mainly due to the heavy transportation expenses on ore and coal.[36] For the Government to decree that the heavy industries should only be located in the interior is hardly a practicable plan.

There will also be no sufficient market for the products of the heavy industries in the interior. The size of their market in peace time depends on the degree of development of the light industries, which in turn depends upon the size and purchasing power of the population. Although Szechuen is quite densely populated, all the other interior provinces are not, while the coastal provinces are. On account of the better quality of the agricultural land, the abundance of navigable rivers and canals, and the trade with foreign countries, the latter region has a much larger population with a larger average purchasing power, and it constitutes therefore a better market for industrial products. There should be a more balanced distribution of industries over the country, but unless the Government is ready to subsidize them with unlimited funds, we cannot expect to have in the interior more manufacturing industries than, or even an equal number of them as, along the coast.

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[33] D. K. Lieu, *Industrialization and China* (in Chinese), Commercial Press, Chungking, 1943, Chapter II, discussing the factors mentioned by F. S. Hall in his *Monograph on the Localization of Industries.*

[34] For a more detailed account of the mineral resources in the interior as compared with other parts of China, see Fong, *op. cit.*, p. 28 *et seq.*

[35] Weber, *op. cit.*, pp. 55-60; E. W. Zimmermann, *World Resources and Industries*, Harper & Bros., N. Y., 1933, p. 667.

[36] Lieu, *China's Industries and Finance*, Chapter on iron and steel production costs, *op. cit.*

Economic forces will also militate against a wide scattering of industries over the whole country. Industries will gravitate towards certain centers where the population is especially large, and where commercial, financial and transportation facilities are available. Weber and Ohlin, in their theories of location of industries, lay special emphasis on transportation, which is of course very important, but commercial and financial facilities have also much influence on the matter.[37] Seaports often grow into large industrial cities, not only because trade affords an outlet for many industrial products, but also because they generally possess these facilities. As soon as an industrial city is formed, more people will be attracted to it by the opportunity of industrial employment, more commercial and financial institutions will come into existence, and transportation facilities will increase. Perhaps electric power and means of transportation are the two things which the Government can provide according to its own plan, but the other factors are either supplied by nature or follow a spontaneous growth.[38] However, if the Government is able to provide these two things—power and transportation—adequately, it can go quite far in promoting economic development in the country.

Power plants and transportation facilities are therefore of great importance to economic reconstruction and development. They are not only necessary to the manufacturing industries, but also to mining and agriculture. As they are discussed in several connections in this volume, and as we do not intend to consider technical plans about their construction, we will not go into further details here.

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[37] Weber, *op. cit.;* Bertil Ohlin, *Inter-regional and International Trade,* Harvard University Press, Cambridge, 1933.

[38] Lieu, *Industrialization and China, op. cit.,* pp. 31-32.

CHAPTER V

NEW PROBLEMS CREATED BY THE WAR

TOPOGRAPHY AND RESOURCES IN THE INTERIOR

TO HAVE A GOOD IDEA of the new problems that cropped up during the war with Japan, we must first know the area which was free from enemy occupation and its topographical features. This, the so-called Free China, consisted of the provinces of Szechuen, Shensi, Kansu, Chinghai, Sinkiang, Ninghsia, Sikang, Kweichow, Yunnan, Kwangsi and certain parts of other provinces which are adjacent to these or even far away on the sea coast. It was because the Japanese were unable to penetrate into all parts of any province under their occupation that, in most of them, the Chinese Government still retained control over a number of districts. In certain provinces, like Hunan and Kwangtung, the number was large, and they are adjacent to the interior provinces of the West.[1] For these reasons they formed important parts of Free China, until the Japanese penetrated through Hunan into Kwangsi, and severed all their communications with the interior. By the time Kweichow was invaded, Free China was much smaller than the area outlined above.

Yunnan and Kweichow are on a high plateau, as are also several other of the above mentioned provinces. There are often high mountains separating these from one another. Szechuen, for instance, is completely surrounded by mountains, although a large part of the province consists of a river basin. In the north there is only one narrow mountain pass through which communication is possible with Shensi, and similar conditions exist on its eastern and southern borders. While such topographical features afforded good protection against enemy attack, they also made mobilization of resources between different provinces very difficult. As a result, Szechuen had to bear the brunt of the burden of resistance.

In these parts China has some agricultural and mineral resources. With regard to the former, Szechuen and Hunan are the rice granaries of China. The western part of Szechuen, in the so-called Chengtu Basin, is a rich rice producing center, while there has been a saying in China that, if Hunan has a good harvest, then the whole country need not worry about food. Strictly speaking, Hunan alone is unable to supply the demand for rice in the whole country, but it has a large surplus, which helped in the early years of the war to supply the needs of the population in the interior, as well as of the army. When communications between Hunan and the interior were cut off, the sole source of supply of rice was Szechuen. Kweichow and Kwangsi used to be deficient in cereal production, and although the people in the northeastern provinces of Shensi and Kansu, etc., do not live on rice, their own cereal production is not always self-sufficient.

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[1] The word "interior" is used throughout this chapter to designate the provinces mentioned before and excludes Hunan, Hupeh, Honan, Shansi, etc.

Shensi is a cotton producing center, but not much cotton had been grown in Szechuen before the war, while the cotton mills were, during the war, mostly located in that province. Hence, the problem of supplying raw materials to these mills was quite serious, because the cotton had to be transported from Shensi over a highway, which had to go through the narrow mountain pass mentioned before. However, a species of cotton similar to that of Egypt was found in Yunnan. Since there was a large demand for cotton textiles, of which no more could be obtained from the occupied territory or from abroad, much effort was made to extend the cultivation of this kind of cotton there. The fiber was so fine that it was only suitable for the higher counts of yarn, and the mills had to obtain cotton elsewhere for the lower counts.

Since the iron works were mostly located in Chungking and its neighborhood during the war, ore must be obtained from the nearest source. Kikiang has fairly large deposits, and it has also a number of old-fashioned smelting works, which have been in existence for many years. Although it is not far from Chungking, the boats that ply between these two localities have a very small carrying capacity, and the transportation cost, during the later years of the war, was very high. Two other important iron deposits are at Wutungchiao, Szechuen and Yimen, Yunnan, but till the end of the war, Kikiang was the main source of supply.

In the vicinity of Chungking there is also much coal. This, together with the proximity of the Kikiang iron deposits, turned the city into the war-time industrial center of Free China. Many of the factories were "transplanted" from the coastal provinces, and many new ones were also established, both by the Government and by private industrialists. Before the war, there had been few manufacturing industries in the interior, and although Szechuen was the most advanced province in that respect, it had only about a hundred factories, mostly small silk filatures, cotton weaving mills, and certain kinds of chemical works.[2]

After the equipment of more than 600 mines and factories had been moved to the interior, and after many new ones had been exploited or established, the productive capacity there increased a good deal. But it took quite a few years for these mines and factories to start operation. Some of the equipment was damaged on the way by Japanese bombs, and many machine parts were lost during the removal. The repairs and replacements had to be made by machine works similarly moved to the interior, which necessarily took much time. Had all the factories been able to start operation immediately after removal, the economic situation, which will be described later on, would have been quite different.

TRANSPORTATION DIFFICULTIES

While modern transportation facilities have been inadequate in all China, they were particularly lacking in the interior provinces. Before the war there was only one railway line which traversed a part of Shensi, namely, the Lunghai Railway, and a narrow gauge line that connected Kunming in Yunnan with Haiphong in French Indo-China. Of course, there was the Canton-Hankow railway that ran through the middle of Hunan and Kwangtung, but since the Japanese soon occupied the two terminal cities and also penetrated along the line, this railway lost much of its value. However, one section between Changsha and Hengyang was of extreme importance till 1944. This was because an east-west line, the Chekiang-Kiangsi Railway, was connected through highways and the Chuchow-Pinghsiang line to the Canton-Hankow Railway at Chuchow, near Changsha, and a short line was built from Hengyang to Kweilin so as to enable the important products of the coastal provinces to be shipped to the interior.

The line connecting Hengyang and Kweilin was later extended into the province of Kweichow. It was a painful process, because there were no mills in China producing rails, and the line had to be built with old rails torn from other lines before they were lost to Japan. Similarly the rolling stock was mainly transferred from other railways when the Chinese Army retreated into the interior. The line from Hengyang to Liuchow was known as the Hsiang-Kwei Railway, and that from Liuchow into the Kweichow Province as the Chien-Kwei Railway.[3] These two improvised lines served much purpose until the Japanese entered Kwangsi province. At the same time, although the narrow gauge railway in Yunnan had a very low carrying capacity, it was partly torn up near the Yunnan border when the Japanese occupied French Indo-China, and the rails were laid in a section of the same province further north, connecting Kunming and a city near the border of Yunnan and Kweichow. The original plan was to extend the latter into Szechuen province with Hsufu as the northern terminal. It was therefore called the Hsu-Kun Railway, but was never completed. At the same time, the Lunghai Railway was extended westwards. However, till now it has not yet reached Lanchow, the western terminal of the railway according to the original plan.

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[2] D. K. Lieu, the *Manufacturing Census of China of 1933*, *op. cit.* The information is contained in various tables in Volume II.

Although the Yangtze River in Szechuen is partly open to steam navigation, the tonnage of vessels that can navigate on it is very much limited. In fact, the short navigable distance is divided into two sections, and freight often has to be trans-shipped at a point mid-way between Chungking and Chengtu. There are a few other rivers in Szechuen which are partly navigable by light steam vessels, but even such inadequate facilities hardly exist in any other part of the interior. For some time, passengers had to depend mainly on air transportation, and there were airlines connecting Chungking with Chengtu, Kunming, Sian, Lanchow, Kweilin, and Tihwa in Sikiang province.

There are many highways in the interior, but their surface is in a bad condition. Although the number of motor trucks and buses was increased during the war, it was still very inadequate. Besides, most of these vehicles had stood too much wear and tear, and often broke down on the way. The greatest difficulty, however, lay in the supply of fuel oil. After the Japanese occupation of Hongkong, the supply came from Burma, but that too was stopped when the enemy occupied the latter place. As will be explained later on, it would cost too much to transport Kansu oil to Szechuen and the Southwest, and most motor vehicles there had to use alcohol and other kinds of substitutes. Some of these substitutes often damaged the engines. For these reasons, the highways did not help much in solving the transportation problem.

With regard to international communication, the Canton-Hankow Railway was the most important one before the Japanese occupied Canton, because goods could easily reach that city from abroad, via Hongkong. After that much dependence was on the narrow gauge

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[3] The Chien-Kwei line reached Tuyun when the war ended.

Yunnan railway and on the port of Kwangchowan, although from the latter there was a long haul on highways into the interior. The quantity of traffic was, nevertheless, quite large. The products of the Chinese coastal provinces were similarly shipped to the interior over these routes.

To open up a direct line of communication with Burma, the well-known Burma highway was constructed with hand labor entirely, within the short period of six months. Unfortunately, the British Government was obliged, under Japanese pressure, to close the highway at the Burma border for several months in 1941. Later the penetration of Japanese troops into Burma closed it for a much longer period. It was not until the construction of the Ledo road from India to the Burma-Yunnan border, after the recovery of the northern part of Burma from the Japanese by a mixture of Chinese, American and native Kachin troops under General Stilwell, that this highway was of use again. However, a large part of freight from foreign sources, mainly ammunition, was carried over the "Hump" in the Himalaya Mountains, and delivered at Kunming. Such air transportation, advocated and made possible by General Chennault, was really more effective than either the narrow gauge Yunnan Railway or the Burma highway, if we consider the large number of air transports that made use of the route almost every day.

ECONOMIC WARFARE

From the above it may be seen that China was waging a defensive economic warfare against the Japanese, at the same time that the two armies were engaged in the field. In certain periods this economic warfare was more serious than actual fighting, but it is something to which most foreign observers have failed to attach much significance. At the beginning, as has already been mentioned, while the Japanese occupied the coastal cities, the Chinese Government moved away the factory equipment there, especially those of use to national defense. It was moved part of the way on junks and carts pulled by draft animals, and part of the way on trucks, steamships and railways. This was of course known to the Japanese, and they did their best to destroy the shipments by aerial bombing. As the invading army penetrated further and further into the interior, the lines of communications joining the latter to the coastal cities were cut off one after another, but wherever possible, the Chinese Government tried to utilize whatever sections of them were still available. Thus, sections of the Chekiang-Kiangsi, the Canton-

Hankow and the Lunghai Railways served as means of transporting troops, ammunition and essential commodities, even though these lines were far away from the center of resistance, which was in the province of Szechuen. At the same time, where regions were occupied by the Japanese, the rails and rolling stock of the lines that traversed such regions were moved to the interior, and new railways were built with them. In the same way, steamships, motor trucks, and even junks were moved.

There was also a direct fight for essential commodities themselves. While at first laws were passed prohibiting any trade with the occupied areas, it was later found that such practices of other countries could not be followed by China to advantage. Instead, the Government decided to buy up such commodities wherever it could. Both sides tried their best to get the antimony and wolfram of Hunan and Kiangsi, but the Chinese Government also sent special purchasing agents to the coastal provinces to buy tea, tung oil, and other products which it could sell for foreign exchange. At one time, the Foreign Trade Commission, with which the writer was connected for many years, fought very hard to obtain these commodities and to have them shipped to Hongkong or other localities where they could be exported. These agents, as well as those who had to move the rails, rolling stock, and industrial equipment, often ran great risk of losing their lives.

On the part of Japan, she too, when she realized that her troops could not penetrate, in large numbers, the mountain fastnesses in western China, and occupy that region as she did the coastal provinces, laid more emphasis on economic warfare. Step by step she tightened her economic blockade. After having successfully taken Changsha at her fourth attempt, she spent nearly two months in attacking Hengyang, reduced it to complete ruins, and then proceeded southwestwards into Kwangsi. This not only nullified the efforts of the Chinese Government in constructing the Hunan-Kwangsi Railway, but also cut the line of communications between the interior and Kwangchowan. Further penetration by Japan in Kwangsi as well as her occupation of French Indo-China—in which latter place she had met no resistance except that of a small Chinese army stationed with the consent of France to defend that foreign territory—effectively cut off all lines of communications to the South. Her conquest of Northern Burma severed China's last link with the outside world, over land or sea.

The blockade was practically complete by this time, with the exception of two loopholes. Aerial transportation was still possible between China and India, over the "Hump," although at first the quantity of freight that could be thus carried was very small. The second was highway transportation in the Northwest. However, as the USSR was then engaged in a life and death struggle with Germany herself, no supplies could be expected from that country. A plan was made to construct a light railway from India to Chinghai, over very difficult terrain, whence military equipment could be trans-shipped over highways to Kansu, Shensi and then Szechuen. A group of Chinese railway engineers was sent to India to make a preliminary survey of the line in 1943, but when more air transports became available over the "Hump," the plan was not pursued further. The line of supply would be too long, and it would take too much time to have the railway constructed, not to mention the further difficulty of trans-shipment in the Northwest. It shows, however, that, to the last moment, the Chinese Government was bending its efforts to breaking the blockade.

To the Chinese who watched the blockade tighten, especially those interested in economic questions, it was like a process of strangulation. Less and less supply of essential goods reached China from the outside world and the coastal provinces, just as the breath of a strangled man becomes shorter and shorter. China writhed as the rope tightened around her neck. Her power of resistance gradually declined. The economic chaos was but the symptom of a man suffering from a stranglehold. It is one thing to fight, even against heavy odds, but it is another and an entirely different matter to be suffocated to death.

It may be thought by some people that China still had at that time a large piece of territory intact. That was, of course, quite true, and it was this extensiveness of territory that enabled her to survive the ordeal. Economically, however, the interior provinces were not adequate for the purpose, as has been explained above. Imagine, for instance, that the Mountain States of Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah and Nevada were cut off from communication with the other parts of the United States, and they were made to maintain a standing army of three million men, at the same time supporting a civilian population equivalent to the total population of the forty-eight States, and the reader will have an idea of the war-time situation in China.[4] But this comparison is not really fair, because the interior of China was far less developed than the Mountain States, and the area that could actually contribute anything to the war effort was limited to only two or three provinces. It was nearest to a system of closed economy in actual life. Realization of this fact is necessary to an understanding of the economic problems created by the war and the financial difficulties resulting therefrom.

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[4] The combined area of these States is 863,887 square miles, which is approximately the same as the area of the western provinces of China, excluding Sinkiang and Kwangsi, but including Chinghai and Sikang, and these provinces were much less developed economically than the Mountain States of America.

FINANCIAL PROBLEMS

Before the war the tax revenue of the Chinese National Government came mainly from the customs duties, the salt gabelle and the consolidated tax. The last was an excise tax collected from several kinds of manufacturing industries producing cotton yarn, wheat flour, rolled tobacco, matches, etc. This was the case after the land tax had been assigned to the local governments. When the National Government moved to the interior, most of the custom houses which were located along the coast were taken over by the Japanese, and the revenue from that source naturally stopped. The salt producing regions are also mainly located on the coast, but fortunately Szechuen has a large deposit of salt in the form of salt wells, in the region of Tseliuchin. There is some salt in Yunnan also, although it does not produce as much revenue as Szechuen salt. As to the consolidated tax, the number of factories in the interior which were subject to the tax were few, and the revenue from that source also dwindled.

Instead, the Government did its best to obtain more revenue from the income tax, although here again, on account of the smaller population in the interior and their still smaller income, relative to that in the coastal provinces, the result of such efforts could not be satisfactory. Excess profit tax was also collected, but it was hard to obtain, for lack of a correct accounting system among the businessmen, the proper basis on which to levy the tax.

One very effective means of increasing public revenue was the transfer of the land tax from the provincial governments to the National Government, and its collection in kind. While the prices of agricultural products went up by leaps and bounds, the tax collected had been at the pre-war rate. In 1941, a Financial Conference was convened in Chungking, and the above-mentioned measure was adopted. In that year, 47 million *shih piculs* of paddy and 8 million *shih piculs* of wheat were collected, including compulsory purchases of these grains by the Government from the large landlords.[5] Beginning in 1943, additional purchases were made with a special kind of certificate of indebtedness, repayable in kind after a few years. These collections and purchases enabled the Government to supply the armed forces with their principal foodstuffs. Similarly, those in the civil and educational services were supplied, and, to a certain extent, the population in the large cities, according to a rationing system. In value, the tax in kind increased the public revenue many fold, as compared with what had been collected before in cash.

In spite of this and the institution of certain fiscal monopolies, the budget was far from being balanced, for public expenditure had increased much more. This was partly due to the fact that the Government had to support a large standing army in her war of resistance, and partly because the rising price level was reflected in the Government budget. Several issues of Government bonds were made, but with prices rising continually, subscription to these issues was not very enthusiastic. The Government was therefore compelled to issue notes or make short-term loans from the banks, both of which resulted in inflation. A more detailed discussion of the currency problem will be found in the following chapter, but below I will first describe the process by which prices began to rise before the increasing note issue produced its effect.

HOW PRICES BEGAN TO RISE

It is usually thought that the rising prices in China have been due entirely to monetary inflation. In fact, however, some prices began to rise before there was any noticeable increase in currency issue, and even in later years, inflation was not the sole cause of price instability. As soon as the vicious circle was started, inflation and rising prices became mutually cause and effect, but there were certain other factors which acted directly on prices, and it is these factors which I wish to explain in detail here.

During the first eight months of the war, from August, 1937, to April, 1938, the Chinese exchange rate was maintained at a stable level. Prices in most parts of the country had not undergone much change. In fact, in spite of the large influx of population to Chungking from the war areas, prices there were, with a few exceptions, quite low in the first two or three years, lower in fact than in prewar Shanghai. One of the exceptions was cotton yarn, the price of which began to rise in the early part of 1938. Before the war there had been no cotton spinning mills in Szechuen, and the yarn used by the weaving mills there had come from Hankow, Shanghai and even as far as Shih-chia-chuang, Hopei province. Strange to say, the last was one of the principal sources of supply for Szechuen. With the supplies from some of these localities cut off on account of the war, and with the cotton mills transplanted in Szechuen not ready for operation, there was an immediate shortage of yarn. Its price rose in a few months from about 100 Chinese dollars per bale to over 1,000 dollars, and kept on climbing upwards.[6] This had nothing to do with monetary inflation, for at that time there had not been so much increase in the currency issue as to justify such price phenomena.

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[5] One *shih picul* is equivalent to 50 kilograms. Figures given in the *Statistical Abstract of China*, 1945, *op. cit.*, p. 67.

Like cotton yarn, and for the same reason of shortage of supply, the prices of newsprint, imported hardware and imported chemicals went up in price very abruptly, while the prices of most domestic goods remained stable. In spite of the sudden increase of population due to the war, prices of foodstuffs in Szechuen remained low for several years. Szechuen is a rice producing center, and it has an abundance of livestock, fish, poultry products, vegetables and fruits. The prices of many of them were lower than those in the lower Yangtze Valley, especially the price of rice, which was only about one-half that of pre-war Shanghai. Coal was also abundant near Chungking, and its price was lower than that in Shanghai. During 1938, the cost of living in Chungking, in spite of the rise in the prices of cotton yarn and imported commodities, was lower than in pre-war Shanghai, and not much higher than pre-war Chungking, although the foreign exchange rate began to deteriorate after April of that year.

Another instance which shows how the shortage of supply affected prices was the rise in the price of rice in Kunming, Yunnan, in 1939. Yunnan's production of rice had always been small in quantity. With the addition of some two hundred thousand people to the population of Kunming, there was maladjustment of demand and supply, and the price of this important foodstuff immediately responded to the situation. The price of rice in Kunming became nine times as high as that in Szechuen, which is an adjacent province, but for lack of transportation facilities, the prices in the latter province had no effect on that in Yunnan. If rice were to be transported from Szechuen to Kunming, it had to be carried on the back of draft animals, which would take more than ten days. According to my calculations at that time, the transportation cost would bring the price of Szechuen rice up to the Kunming level. In a similar manner, when the price of rice in Chungking went up very high, that in Hunan, which is adjacent to Szechuen and is the most important granary of China with respect to that cereal, was still very low, but here again it was a question of transportation cost. The rice had to be shipped on junks up a small river against the current, and later carried by draft animals to Chungking, and the Hunan price plus the transportation cost became higher than the price in Szechuen. If the latter cost had gone up very much more, Hunan rice would probably have been "imported," and this possibility set the limit to the Szechuen price as long as communications between these two provinces were not cut off by the Japanese. Since Szechuen is a rice-producing center, the market price there did not go up to that limit.

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[6] Investigations of the Bureau of National Economic Research, Chungking, 1938.

Still another example of high transportation cost as affecting prices concerned gasoline. As first there were large imports of gasoline to China, but as the international lines of communications were one after another cut off by the Japanese, the supply from foreign sources was very much limited. However, during the war, the Chinese Government discovered a rich oil field in Kansu, and was able to refine the crude oil to a certain extent so that it could be used in motor trucks. The cost of the refined oil at the oil field was at one time only $20 per gallon in Chinese currency, while the price in Chungking was about $500. Yet, as there was no pipeline connecting these two localities, the oil produced in northern Kansu had to be transported to Chungking on trucks, which consumed a good deal of the oil on the way, and had to carry much extra oil in order to be able to take the return trip. It was said that about two-thirds of the freight space on the truck would have to be reserved for oil for use on the return trip, and motor transportation of oil between these two localities became very expensive.[7] Therefore, most motor trucks in Szechuen and the South-west used alcohol and other substitutes, and the oil from Kansu was used only on the highways in the Northwest.

When the prices of food grains began to rise in the interior, they introduced another factor which affected most other prices. This was especially true of rice. The common people did not understand price index numbers or cost of living indexes, but they knew the price of rice. It was their index. When the price of rice went up, small farmers, small manufacturers and shopkeepers raised the prices of their products or of the goods they handled. In Kunming, for instance, manufactured goods could at first be more easily "imported" from Shanghai and other coastal cities, and their prices were originally lower than those in Chungking, but when the price of rice went up, prices of the former became even higher than corresponding Chungking prices. The rise in the price of rice, therefore, had more psychological effect on the producers and businessmen than most other economic phenomena.

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[7] Based on information supplied by the General Manager of the Kansu oil refinery, Mr. Sun Yueh-chi.

In another way the rise in the price of rice affected all other prices. Rice was the principal foodstuff of the people in the West and Southwest, and when its price went up, their cost of living was directly affected. Laborers demanded higher wages and producers expected higher profits. High wages in turn increased the cost of production and therefore raised the prices of all products. However, the increases in wages were not the result of labor strikes, of which there were practically none. Hundreds of factories had been moved into the interior and a couple of thousand new ones established during the war, all of which needed skilled labor. Although a large number of skilled laborers had also been encouraged to move to the interior, the supply could not meet the demand, and factories competed with one another for them. This applied also to semi-skilled labor and sometimes even to the unskilled. Consequently, there was quick labor turn-over in most factories, for new mills often offered higher wages, which took the laborers away from the old ones.

Thus, without taking monetary inflation into account, there were a few factors which could create some sort of vicious circles by themselves. Transportation difficulties caused a shortage of supply of goods. If the area concerned did not produce enough consumers' goods, especially if they included such an important commodity as rice, the cost of living went up and wages had to be raised. Higher wages and higher prices of certain goods—such as "liquid fuel," which might be alcohol instead of imported gasoline (so as to leave out the question of exchange rate), and fodder for draft animals—increased the cost of transportation, and they in turn created a greater shortage of supply. Also higher wages, higher transportation costs and higher prices of raw materials would all be reflected in the cost of production; hence other prices rose further and they further raised the cost of living. I do not mean to say that this vicious circle could go on without an increase in the circulation of money. What is meant is that inflation could at the earlier stages be, under such circumstances, the result rather than the cause of rising prices.

When the economic blockade of the interior of China was made more and more complete by the Japanese, with the cutting off of the Yunnan railway, the Burma Highway, and the line through Kwangchowan—after the Canton-Hankow, the Chekiang-Kiangsi, and the Lunghai Railways as well as the Yangtze River had become no more available as means of transportation—the rising prices naturally could not be alleviated with imported goods or goods from the coastal provinces, to enable those in the civil and military services to maintain their livelihood. The Government had to increase salary payments from time to time, while the sources of revenue became more and more limited to the few provinces in the interior, as has already been explained some paragraphs back. This caused the budget to be unbalanced, and year after year the mounting deficit had to be met by the issue of notes or loans from the banks. The real vicious spiral then began.

ATTEMPTS AT PRICE CONTROL

As soon as prices became unstable, the Government began to take measures to control them. At first there was no central organization to coordinate the work, but in 1941 the Economic Council was set up to devise measures for this purpose, and later on it was reorganized into the National Mobilization Commission. The writer was connected with both organizations, and had the opportunity of studying not only the general problems of price control, but specific problems affecting the prices of particular commodities. In the following, the principal measures adopted by the Government are outlined, as well as the reasons, aside from currency inflation, why they failed to achieve their objects.

1. *Fixing of ceiling prices.* This was the most obvious measure, and it was thought by some that ceiling prices could be maintained by issuing governmental directives, with some degree of inspection. Since transportation facilities were inadequate, and their charges varied according to the types of facilities used as well as from time to time, it was very difficult to fix price differentials between different cities, towns and rural districts. Hence the measure was enforced only in the large cities, principally Chungking. When enforcement was strict, the goods simply disappeared from these cities

and were sold in smaller towns, where ceiling prices were not enforced, or went into hiding entirely.

Another obstacle to its enforcement was the small scale of production and distribution. The Government could not keep track of all these small producers, and if it enforced the regulations on the large wholesalers, the latter would complain that they had to pay more than the ceiling prices when they bought their goods. These small producers did not necessarily join trade associations, through which the Government might apply some control, and in many trades, especially in the smaller towns, there were no associations at all. Cost accounting for such small producers was out of the question, and it would cost the Government a good deal to maintain a large force of inspectors throughout the interior. Enforcement and inspection had to be limited to the larger cities.

2. *Control of production and prices through the control of raw materials.* This was perhaps the most effective method of war-time control in China. The supply of cotton to Chungking cotton spinning mills came mainly from Shensi, although to a much smaller extent also from Szechuen itself, since production had been encouraged in that province. Shensi cotton had to be transported over a long distance on highways, and there were many places where the shipments could be checked. The Government controlled this cotton, and allocated it to the cotton spinning mills according to their requirements. For every bale of cotton so supplied, the mill had to hand over to the Government so much yarn of various counts, at the ceiling prices fixed by the Government. Then the yarn was in turn allocated to the cotton weaving mills, and for each bale of yarn supplied the latter had to turn over so much cloth to the Government. The cloth was more or less standardized with respect to size and weight, and no fancy goods were to be produced. Colors were limited to white, blue, grey and black. This cloth was distributed by the Government among a number of specified retailers, which had to sell it at the ceiling price, according to a rationing system to be discussed later on. Since yarn from the cotton spinning mills was not sufficient to meet the demand, the weaving mills were advised to produce cloth with such yarn as warp, and hand-spun yarn as woof. Production and price were similarly controlled, but the mills had to buy the hand-spun yarn themselves.

Cotton textiles have been given here only as an example. Several other kinds of commodities were controlled in a similar manner. Even though this system was quite effective, there were still loopholes for profiteers. However, it worked fairly well because the cotton spinning mills were large factories, and the measure could be more easily applied. In the case of sugar, where, though the refineries were small in size, the industry was concentrated in a few localities, control was also comparatively easy. With rice, which was the most important item affecting the cost of living of the Chinese, this system would not work, because the rice hulling mills were small and scattered throughout the provinces. To solve this problem, an entirely different measure was adopted by the Government.

3. *Controlling the prices of rice and wheat.* By collecting the land tax in kind, and by adopting other related measures mentioned some pages back, the Government acquired large quantities of rice and wheat. These were supplied first to the soldiers, and next in line came those who worked in the civil service and the educational institutions. These latter had to pay for the rice and wheat, but at reasonable prices, and at quantities fixed according to the sizes of their families. To a large extent this enabled the civil service men and educators to maintain their living in spite of rising prices, since the expenditure on these cereals usually constitutes a large percentage in the family budget. The general population in certain cities was also supplied with these cereals under a rationing system.

4. *Rationing of other consumers' goods.* The application of a rationing system is to limit the demand for goods to the quantity that can be supplied, so that the surplus purchasing power in the hands of the public cannot exert its effect on prices. It presupposes some degree of control over the supply. In China during the war, there was not only no possible control over the commodity supply, except in a few cases, but the quantity also could not be estimated. The producers were all small, their number was very large, and transportation facilities were entirely inadequate. There might be a super-abundance of certain commodities in some localities while they were extremely scarce in others. The Chinese Government, therefore, found it necessary to limit the rationing system to a few localities and a few essential commodities. Examples of the latter were salt, sugar, vegetable oil, and cotton cloth, besides rice and wheat flour. The quantity that each person was allowed to consume every month was definitely fixed for each article, thus doing away with the more complicated point system. At the same time their prices were also fixed.

5. *Prevention of Hoarding.* When prices continued to rise very rapidly, war profiteers began to hoard goods, which further di-

minished their supply and made the price situation worse. Of course it was prohibited by law, and the Government punished them severely, passing death sentences in a number of cases.[8] A special economic police force searched all suspicious shops and houses, but it was impossible to search everywhere and all the time. The hoarders could hide their goods at all sorts of places, and move them about from time to time. Often they were sent to farmhouses away from the cities. A large hoard would usually be stored at a number of separate places, and when small quantities of any commodity were being moved, the police could not tell whether they were legitimate merchandise or speculative hoards. Both the National Economic Council and its successor, the National Mobilization Commission, paid special attention to this problem, but it was found to be a baffling one. When a culprit was caught, it was usually due to the receipt of information from one source or another. When prices rose so rapidly that the hoarders could make large profits from small quantities of goods, the scale of their operations was so small that they easily eluded the vigilance of the police. Large speculators also broke up their hoards into small lots. It was like bootlegging in the United States during the period of prohibition, only with the additional difficulty that the production and sale of the goods themselves were not prohibited by law. It was very difficult to prove, except under certain circumstances, that the movement or keeping in stock of certain goods was illegitimate.

An additional difficulty was that, on account of the long boundary line between Free and Occupied China, movement of goods between them could not be easily controlled. If ceiling prices, the rationing system, and the punishment of hoarding, were very strictly enforced throughout the former, goods would flow into the latter, area, which would not at all be a desirable thing. Although the situation became less complicated after the war, the shortage of supply due to low productive capacity, the small size of the productive units, and the transportation difficulties, still continue to be stumbling blocks in any attempt at price control.

WAR-TIME DESTRUCTION

On top of all this we must not forget the amount of destruction wrought by the war and its effect on post-war productive capacity.

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[8] The writer has often been asked by foreign friends why more hoarders were not shot. The answer is that quite a number of them were, only these cases are not known to foreigners in general.

According to the investigations of the Chinese National Relief and Rehabilitation Administration, 439 cities and towns have either been totally or partially destroyed. The percentage of destruction and the number of cities and towns so destroyed are as follows:

Percentage of Destruction[9]	*Number of Cities and Towns*
90-100	43
70-80	54
50-60	76
30-40	105
10-20	161
Total	439

Many provinces in which severe fighting had taken place, resulting in much destruction, were not included, because it was for many reasons not possible, at the time of making the investigations, to obtain any data. For instance, Hopei, Shansi, and certain parts of Shantung were excluded. In the case of Kiangsu, Chekiang and Fukien, only those having incurred losses above 50 per cent were reported. Since these provinces were among those which suffered most during the war, the actual extent of destruction is therefore much larger than is indicated by the above figures.

With regard to transportation, 2,399 kilometers of railways have been completely destroyed or dismantled, and 1,871 kilometers partially destroyed. Also, one-half of all locomotives, one-third of freight cars and 40 per cent of passenger cars, which China possessed, have been damaged. The damage sustained by shipping is even greater. In June, 1936, 703,420 tons of steamships were registered under Chinese ownership, and of these 577,213 tons have been lost. The loss of junks and fishing boats is also very large. Sixty-eight thousand kilometers of highways and 80 per cent of bridges have been wholly or partially destroyed, and the loss of motor vehicles amounted to approximately 50,000.[10]

In the mining and manufacturing industries, it would be difficult to list all the losses by industry and by equipment, but some idea may be obtained by comparing the post-war with pre-war productive capacity. Of all the more important lines, the paper and pulp industry suffered the least, yet even in that industry the productive capacity is now 30 per cent less than before the war. In all other mines and industries, the loss varies from 50 to 60 per cent.[11] When we bear in mind the low degree of industrialization in China, the loss in the productive capacity in the mining and manufacturing industries and the destruction of railways, rolling stock, steamships, highways, and motor vehicles, as enumerated above, must have set her back even more.

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[9] These are rough estimates made in the Chinese manner, according to which 10-20 per cent, for instance, does not mean between 10 and 20 per cent, but rather anywhere from 10 up to less than 30 per cent.

[10] Data supplied by the Ministry of Communications, most of which are later published in the *Report of the Working Group for Asia and the Far East,* Temporary Sub-Commission on Economic Reconstruction of Devastated Areas, U. N., March 1, 1947, pp. 21-22.

Since, in spite of the efforts at reconstruction during the war in the interior, both her productive and freight carrying capacity has greatly diminished, the supply and circulation of goods must necessarily be affected thereby. War-time prices in the interior rose because of limited production and transportation difficulties, and they must keep on rising after the war because conditions cannot be improved. Even in agricultural production, which in China does not depend so much on the use of agricultural machinery, the effect of the war is keenly felt. According to one source, the production of field crops has decreased from one-seventh to two-thirds in many cases, while another source proves that production of exportable goods has at least dwindled.[12] It is also stated on good authority that if the yield per acre has not changed much, the area under cultivation is much smaller. This is apparently due to destruction of villages and farm implements, as well as the slaughtering of draft animals, by the Japanese, which makes it impossible for the farmers in such regions to resume their production.

Finally the loss in human lives is very heavy. While the direct war casualties are estimated at about 3 million soldiers and 5½ million civilians killed, the number of those who were wounded or who died from starvation or from infectious diseases spread from the battle-field must be many times these figures. Besides human suffering which cannot be expressed in terms of money, it means also a loss of man-power on which production depends. In agriculture, especially, this loss will be reflected directly in terms of production, since Chinese farming consists primarily of two factors, land and labor.

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[11] Based on information obtained from the Statistical Department of the Ministry of Economic Affairs. These figures refer to productive capacity, while actual production, for lack of raw materials, etc., is much lower.

[12] Based on information from the Ministry of Agriculture and Forestry and the China-United States Agricultural Mission (*op. cit.*).

WOULD-BE GAINS CONSIDERED

As an offset against losses due to such destruction, the taking over of Japanese property in China is considered by some a gain. According to a report of the Alien Property Administration of China published in November, 1946, the property so taken over consisted of 1831 industrial units, 77 mines, 45 electric power enterprises and 435 commercial firms. There were also 13 educational, cultural and administrative organizations. Of the industrial units, 629 were located in Kiangsu, Chekiang and Anhwei, 277 in Taiwan, 132 in Manchuria, and 381 in the provinces of Hopei, Chahar, Jehol and Suiyuan.[13] The number of units seems to be quite large, but there are many considerations which make the gain much less important than it appears to be.

In the first place, only some of these units outside Taiwan had belonged to Japanese nationals or the Japanese Government. Others had been the property of the Chinese puppet regimes set up by the Japanese, or of Chinese nationals who had collaborated with them. The last constituted perhaps the largest percentage of the total. What was supposed to have belonged to the Japanese Government was mostly the property of Chinese nationals who did not collaborate with the enemy, and therefore their enterprises were confiscated by the latter. Enterprises under the last two of the four categories were therefore Chinese enterprises, and a third one mainly so. They were not really something taken over from the Japanese. Only those which belonged to Japanese nationals—even here there were many cases of Chinese enterprises taken over by the Japanese military authorities during the occupation and awarded to their nationals—may be considered as a pure gain. Wherever the original owner is a Chinese, the Government has, as far as possible, restored the property to him, if the latter has supplied proof of ownership.

Secondly, while the number may appear to be quite large, the size of the "unit" is often very small. Most of the industrial units are of that kind, as are also many of the commercial firms. For instance, 480 of the former were released for sale by auction to private capitalists, and they were said to be very small and poorly equipped. But this number constituted about one quarter of the total, and they did not include steam filatures and other small factories which the Government decided to operate on its own account. Chinese industrial plants are usually small, and these 480 are too small even according to the Chinese standard.

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[13] This and other information about the Alien Property Administration is taken from a mimeographed circular of the UNRRA, United Nations, N. Y.

Taiwan has several kinds of industries, of which sugar refining is the most important. There are altogether 42 plants in this industry, which operates more mileage of railways than the former Taiwan Government. The 277 units taken over by the APA are those formerly owned by the Japanese, for those owned by the natives of Taiwan are not subject to expropriation. Since they now have to be operated by the Chinese Government, they have constituted a drain on the finance of the Taiwan Administration until all equipment has been repaired and their products can reach the market.

The total value of the property thus taken over by the APA was estimated at $530 billion in Chinese currency. At the official exchange rate of 3350, it amounted to approximately U.S.$158 million. If the market value of such assets has risen with rising prices, it will make some difference only in terms of Chinese currency, but not in U. S. dollars.

Before the war, the main part of Japanese business investments in China was in Manchuria. Down to 1936, they amounted to 2.8 billion yen. Since the outbreak of the Sino-Japanese war on July 7, 1937, there have been further investments amounting to 7.9 billion yen. Although China is legally entitled to take over all such properties there, she has not been able to do so. The engineers and administrators sent by the Chinese Government to take over enemy properties in Manchuria either were prevented from reaching their destination, or, where they succeeded in doing so, found that the plants had been stripped by the Russians of their valuable equipment. According to Mr. Edwin W. Pauley's report to President Truman, the value of the equipment that was so removed is estimated at U. S. $2 billion. Compared with this figure, the value of the property taken over by the APA constituted less than eight per cent, and much of that was not Japanese property at all.

While complete statistics of post-war industrial production are yet unavailable, the number of industrial plants taken over from the Japanese and the Chinese puppets and put into operation in June, 1946 is given in the same report of the APA, as follows:

Smelting	24
Machine-making	103
Metalware	33
Electric appliances	18
Chemical industries	291
Textile industries	135
Clothing and ornament	7
Foodstuffs	99
Paper and printing	22
Miscellaneous	51
	783

In addition 35 electric power plants and 36 mining enterprises have resumed operations. It is stated that by the end of September 105 more were added to the list, making a total of 959.[14]

Even in Manchuria, in spite of the removal of most industrial and mining equipment by the Russians, some enterprises have resumed operations. The National Resources Commission has done its best to operate the Fushun and Anshan mines and mills, whenever circumstances permit: in other words, when these localities are not occupied or attacked by the Communists.[15] The road-bed of the projected Chengtu-Chungking Railway, which was built during the war, is being repaired, and more bridges are being constructed. If the French loan agreement, which provides for the supply of rails and rolling stock, should be put into effect, construction of the railway will go ahead. An extension of the line from Chungking to Hankow has been planned, and surveys are being made.

Many new factories, run by private individuals, have been established in Shanghai and other cities. As prices have been continually rising, some industries—both old and new—make large profits, and for that reason are running at full blast. This is especially so with cotton mills, because they can obtain the necessary raw materials, and their products are in urgent demand. It is therefore not true that industrial production has stopped in China. No doubt, for lack of raw materials, the breakdown of much worn-out machinery, or other reasons, some industries have been compelled to operate intermittently, and others have ceased operation, but it does not mean that industrial production as a whole has come to a complete standstill.[16]

As China is an agricultural nation, the most important part of her production is also agricultural. The farmers have certainly kept up their production with more vigor than before. They are not affected by the land tax in kind, because it constitutes only a small percentage of the total yield. However, agricultural production has suffered from the war in many respects. The soldiers came mostly from the farms, and since so many of them have been killed or maimed, there is a shortage of manpower. The supply of fertilizers is also very inadequate. In many regions draft animals have been killed, farm implements and dwelling houses destroyed, and the farmers are unable to till their land. A famine has been caused in Hunan on this account.

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[14] In the original digest of the Report, the mining enterprises and power plants are included in the table, as well as four commercial firms. It is therefore uncertain if the additional 105 units include commercial enterprises or not.

[15] Information supplied by Mr. C. Yun, Director of the New York office of the Commission, who returned from China in February, 1947.

[16] For recent data about industries, see appendix to this chapter at the end of the book.

From the above it is plain that the war has deeply affected the Chinese economy, and its effects are now being felt. With a much larger note issue and a much smaller production in all lines, than before the war, the price situation naturally cannot be soon alleviated. In the next chapter we shall consider the currency problem and look at the general economic situation from that point of view.

CHAPTER VI

THE CURRENCY PROBLEM

TO UNDERSTAND the currency problem during and after the war and the economic warfare in this sector, we have to go back to the time when the New Currency System was first established. Before November, 1935, China was on the silver standard, but in that month all silver was nationalized, and only the paper money issued by the four Government Banks was allowed to circulate.[1] This was known as *fapi,* or legal tender currency, and its value was fixed at $1.00 to 1 shilling and 2½ pence sterling. The Government Banks, in particular the Bank of China, undertook to buy and sell sterling exchange freely at that rate, and charged only a commission of one quarter of one pence per dollar. Similarly, American exchange could be obtained at approximately U. S. $29.50 per $100 Chinese currency.

When the Lukouchiao incident happened on July 7, 1937, there began a flight of capital, and by the time the Japanese started to invade Shanghai on August 13 of the same year, the Government Banks, for the sake of maintaining the exchange rate, sold out some seven and a half million pounds, worth about $124 million in *fapi.*[2] To put a stop to this flight, and to avoid any confusion in the money market, the Government was obliged to limit withdrawals on bank deposits to a fixed sum each month. When the depositors could not withdraw cash without limit, they made most payments in checks, which circulated in the market without being cashed. This gave rise to the so-called *wei-wah* system, and there was a slight discount on the *wei-wah* or uncashable checks. However, no limit was placed on the supply of foreign exchange till the following March, and the official rate was fairly well maintained.

On March 10, 1938, the puppet regime in Peiping, under Japanese sponsorship, established the so-called Federal Reserve Bank, and began to issue its own notes. Since, with these notes, the puppet bank was in a position to get large amounts of *fapi* from the people, with which it could buy foreign exchange from the Government or foreign banks in the Shanghai Settlements, it became necessary to institute some form of exchange control. Arrangements were made with the foreign banks in China by which they could obtain foreign exchange, in addition to what they had in their own possession, from the Central Bank, provided there were applications from legitimate importers that received the approval of the latter. However, since China had always had a huge import surplus, the drain on the foreign exchange resources of the Government was so great that the amount granted to such banks was progressively curtailed. Meanwhile, the market rate deteriorated to about 8 pence per Chinese dollar.

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[1] The issues of a few commercial and semi-Government banks were also allowed to circulate at first, but they were gradually retired with the notes of the four Government Banks.

[2] C. Y. Chow, *War-time Financial Control,* p. 127 (in Chinese).

About a year later, in March 1939, a loan was arranged with Great Britain, and with additional resources contributed by the Chinese Government Banks, an Exchange Stabilization Fund of £10 million was set up. Foreign exchange was again supplied freely to the public, but at the new rate of 8¼ pence. By this time, the Hwa Hsin Commercial Bank was established by the puppet regime in Nanking, which linked its note issue to the *fapi,* and as the bank was located in Shanghai, there was a more direct threat to the foreign exchange market in that city. Besides, the Japanese had acquired control over many important products of the coastal provinces, including cotton, and the cotton mills, which were concentrated in Shanghai, were compelled to import cotton from India. This and several other contributing factors created a very heavy demand for foreign exchange, and in three months, in spite of the work of the Stabilization Fund, the market rate fell to 6½ pence, and the operations of the Fund were suspended.

On July 2, 1939, the Government published three kinds of regulations which had a bearing on the exchange situation. It put a ban on certain kinds of imports which were considered as non-essential. Exporters who had to surrender their foreign exchange to the Government were given a subsidy equivalent to the difference between the official and the bulletin rate. By the latter was meant the rate put up on the bulletin boards of the Government Banks, and it was approximately the same as the market rate, although it did not vary with the latter all the time. At the same time, the importers were required to pay to the Government Banks the same difference, in addition to the official rate, in the name of "equalization fee." It meant in fact that the market rate was taken into account, although, as that rate continually deteriorated while the bulletin rate was fixed for fairly long periods, there was usually some discrepancy between the two.

A NEW STABILIZATION FUND

In April, 1941, a new attempt was made to stabilize the exchange. A Stabilization Fund of U. S. $110 million, consisting of £5 million from England, U. S. $50 million from America, and U. S. $20 million from China, was set up, under the control of a committee of five, representing these three nationalities. Meanwhile, the Chinese Government Banks had begun, in the preceding month, to sell foreign exchange in Chungking, to supply the legitimate requirements of the importers in the interior. The Fund, however, was operated in Hongkong, since at that time the island was not yet taken over by the Japanese. The rates adopted were $3\frac{5}{32}$ pence for sterling and U. S. $\$5\frac{5}{16}$ for the American currency. Only for certain specified purposes and within certain specified limits, could importers and other private individuals who had legitimate requirements for exchange obtain such exchange from the Fund.

Since there were many loop-holes through which the Japanese and their puppets could still obtain resources from China,—for instance, by controlling and selling Chinese products to foreign countries, or by offering better rates to exporters or other people who received remittances from abroad,—exchange control exercised inside the country, under such circumstances, could not be entirely effective. Hence, arrangements were made with the United States and Great Britain to freeze the foreign resources of both China and Japan, which became effective on July 26, 1941. However, the power to draw on the frozen Chinese assets was invested in the Central Bank of China, by which the Bank could buy drafts on London or New York from both Chinese and foreigners, and pay for them with Chinese currency at the bulletin rate mentioned above, if the original holders were willing to sell them. Private individuals who wished to transfer their deposits in foreign banks to the Central Bank could also open accounts in the original currency, and with the permission of the Government's supervising agency could make payments out of them for permissible imports and other expenses abroad.

While the control over foreign exchange obtainable from exports was carried out by the Foreign Trade Commission, in cooperation with the Customs Administration and the Government Banks, the control over the supply of such exchange to importers, private individuals and Government offices, was later in the hands of two special commissions—the Chinese Currency Stabilization Board and the Commission for the Control of Foreign Assets. The former was first organized in April, 1941, and its members were composed of Americans and Englishmen as well as Chinese. Having undergone some change and with the staff increased in size, the Board was moved from Hongkong to Chungking, and in April, 1944, it was amalgamated with the Commission. This Commission was at first set up in October, 1941, to pass upon the applications of the various Government offices for foreign exchange, but after the amalgamation, all applications had to be passed by it. It had also a department to take care, or otherwise keep track, of foreign exchange obtained from exporters, overseas remittances, and other sources.

At first the foreign exchange resources of the Government consisted mainly of the silver which it sold abroad at the time when the New Currency System was adopted in 1935, and of several foreign loans, including those made in connection with the Stabilization Funds. On February 1, 1942, however, two large foreign loans were contracted—U. S. $500 million from America and £50 million from Great Britain—although definite arrangements about the latter were completed much later.

So far the Chinese Government had tried to follow the usual procedure of stabilizing the exchange rate with the help of equalization funds, but when Japan had cut off most of China's lines of international communications, the exchange rate became of no great importance, and the whole policy was reorientated. Instead of attempting to stabilize the exchange, the Government utilized the new American loan of $500 million to contract its note issue and absorb the surplus purchasing power in the hands of the people.

ATTEMPTS AT CURBING INFLATION

Two series of Chinese Government securities were therefore issued in U. S. currency. In May 1942, $100 million of bonds in American dollars were issued, maturing ten years from date and bearing interest at two per cent per annum. U. S. dollar savings certificates were also issued to an equal amount, bearing interest at three per cent. These would mature one year after the savings deposits were received.

Since the official rate of exchange was then $20 to U. S. $1, the bonds were, during the first few months, sold at $16.67, and the savings certificates at $20 per U. S. dollar. For this reason, the difference in the interest rates was not as large as it appeared. However, the public demand for them, especially the former, was not very brisk. As the former would not mature until after ten years, and as, although foreign exchange could be obtained with the latter in a year, it was subject to the freezing orders of the U. S. Treasury, the public found the investment to be not very "profitable," and did not take up large quantities of them. Besides, it was felt that these securities could be bought at any time at the fixed rates, and the buyer could thus afford to wait, meanwhile utilizing his funds in the national currency for other and more profitable purposes. Towards the end of July, 1943, however, the Government announced that further issue of the savings certificates would stop on the third day of the following month. This aroused a sudden brisk demand for them, and the remaining amount of the U. S. $100 million set aside for the purpose was entirely taken up in a few days, following the announcement.

After these certificates had got into private hands, there were transfers from one holder to another, and the amount of Chinese currency that had to be paid for each U. S. dollar continually increased, until in September, 1944, it reached $150. In a similar way, the U. S. Dollar Bonds were also transferred at higher rates, which, however, lagged behind those for the certificates. The unissued bonds, under such circumstances, were gradually taken up by the banks and the public.

Although these securities transferred much money from the people to the Government, the expedient could not be repeated, since it had been announced in July 1943 that no further issue of them would be made. So, beginning in February, 1944, the Government bought gold from America and started to sell it at the fixed price of $18,500 per tael *(shih liang)* through the Farmers' Bank and the Manufacturers' Bank of China. As the public valued gold more than foreign exchange, which could be subject to freezing orders and other forms of governmental control, the fixed quantity of the yellow metal offered every day was readily taken up.

Besides serving the purpose of raising funds for the Government and curbing currency inflation to a certain extent, it was also intended to convince the people that the *fapi* had a fixed value in gold. In this the Chinese Government followed the precedent of the United States, which, after having gone off the gold standard and devalued the dollar in 1933 and 1934, fixed the price of gold as a means of stabilizing the value of her currency. To a certain extent this measure achieved the purpose, for the subsequent market rate of exchange fluctuated much less. In fact, it gradually rose after February, 1944, although at that time there was a revision of the rate of subsidy, to be explained later.

However, as one *shih liang* is not much different from one troy ounce in the United States, and as one troy ounce of fine gold has an official price in the latter country of U. S. $35, the Chinese official price of gold practically set the value of the Chinese currency at around $530 per U. S. dollar. This implied evaluation of the American dollar was much higher than was attributed to it by the market exchange rate, or the market rates for the U. S. dollar bonds or savings certificates, or the market value of U. S. dollar notes. The last commanded the highest value in the market, but it had not exceeded $270 per U. S. dollar. Although all these market rates were mostly determined by prevailing speculative demand, the gap between them and the rate implied in the official gold price was very wide.

Meanwhile, the official exchange rate, which was then identical with the bulletin rate, was still $20 per U.S. dollar. Those whose applications for American exchange were granted by the Government had only to pay at this rate. But the Central Bank of China gave what was called a subsidy to the foreigners in China when they sold their exchange to it, and later this privilege was also extended to the overseas Chinese who made remittances home. Formerly at 50 per cent of the official rate, the subsidy was increased after February, 1944, to 100 per cent, which meant that one American dollar was made equivalent to $40, and a pound sterling to $160.

In June, 1944, the Clearing Fund Board, which represented the foreign missionary and philanthropic bodies in China, obtained the permission of the Chinese Finance Ministry to sell its foreign exchange in the open market. The rate was at first fixed at $100 per U. S. dollar, and later raised to $115 and again to $130. This introduced another rate of exchange, and the value of the American dollar, in particular, was expressed in many different rates, from $20 to $269. If the value implied in the official gold price were included, the range would be even greater.

Since the American armed forces in China were not satisfied with the official exchange rate plus subsidy, they exchanged their American bank notes with the Chinese people directly either for Chinese currency or for goods. The latter were only too glad to receive these notes, and were willing to place a much higher value on them than the official rate. In this way the quantity of American notes that reached Chinese hands, and, in a way, circulated among them, increased month after month.[3] They constituted a sort of additional note issue of larger denominations, and although the Chinese people obtained a form of foreign exchange, the notes did not produce the same deflationary effect as the U. S. dollar bonds and savings certificates, but rather added something to the quantity of money in circulation. Of course, even the bonds and certificates created only a temporary deflationary effect, yet they took the place of a note issue of about $4,000 million. The proceeds from the sale of gold were even larger.

Before the war the total note issue of the four Government Banks was $1,408 million (June, 1937), but there were also some issues by a few semi-government, commercial and provincial banks, which were to be gradually withdrawn from circulation and replaced by those of the four Government Banks, in order to complete the managed currency system adopted in 1935.[4] If we consider only the former, which constitutes the *fapi* or legal tender currency, then its total increased to $3,962 million in three years. However, it must be remembered that many provincial issues in the interior, especially Szechuen and Yunnan, had meanwhile been redeemed with *fapi*, while in the occupied areas the puppet banks had issued large amounts of paper money and the Japanese troops had issued military notes, in addition to the *fapi* already in circulation there. Hence, no statistics can be given that represent the total amount of paper money in circulation at any particular moment during the war. The following figures for *fapi* are given as far as they have been published by the Currency Reserve Board, and their index numbers, as compiled by one author, are compared with the index numbers of wholesale prices in Chungking during the war.[5] Since, for the latter, the base period is January to June, 1937, they are given for January and July of each year, instead of June and December, but this arrangement does not mean a presumed lag of one month between the two series.

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[3] While these notes were often kept as "investments," they were also used by the Chinese in payment of goods.

[4] The semi-government banks are the so-called "Little Three Banks," whose shares are owned partly by the Government and partly by private capitalists, while those of the commercial banks are entirely owned by the latter. By provincial banks I designate those the circulation of whose bank notes was limited to the provinces concerned.

[5] The index of note issue is given in Chi-Yuen Wu's *Currency, Exchange and Prices in China,* a data paper of the Inst. of Pacific Relations, New York, 1945, p. 3, while the Chungking wholesale price index numbers are taken from the *Statistical Abstract of the Republic of China,* 1945, *op. cit.*, pp. 46-47.

Issue of Fapi			*Wholesale Price Index Number*	
Month	*Million Chinese Dollars*	*Index*	*Month*	*Index*
June, 1937	1,408	1.00	July, 1937	101
Dec., 1937	1,640	1.18	Jan., 1938	107
June, 1938	1,727	1.24	July, 1938	122
Dec., 1938	[a] ...	1.57	Jan., 1939	169
June, 1939	2,627	1.97	July, 1939	216
Dec., 1939	3,082	3.13	Jan., 1940	325
June, 1940	3,962	4.20	July, 1940	577
Dec., 1940		5.60	Jan., 1941	1,121
June, 1941		7.50	July, 1941	1,640
Dec., 1941		10.10	Jan., 1942	2,662
June, 1942		14.30	July, 1942	4,428
Dec., 1942		21.40	Jan., 1943	7,930
June, 1943		32.10	July, 1943	14,850
Dec., 1943		48.20	Jan., 1944	26,402
June, 1944		72.30	June, 1944 [b]	44,789

[a] Dr. Wu's data paper, from which these figures are taken, does not give the figure for this month.

[b] The June, 1944, figure is used because the July figure is not available.

The post-war wholesale price index numbers, as compiled by the China Institute of Economics and published in the Chinese weekly magazine, the *Economic Review*, Shanghai, Vol. I, No. 19, August 9, 1947, received after the manuscript had been sent to the printer, are as follows (1936 = 1):

1945	
September	346.7
October	584.7
November	1,931
December	1,750
1946	
January	1,809
February	2,995
March	4,307
April	4,098
May	4,373
June	4,626
July	4,899
August	5,010
September	5,865
October	7,036
November	7,359
December	7,958
1947	
January	10,363
February	17,658
March	18,361
April	22,161
May	32,702
June	37,161
July	46,557

Although the index number of the volume of *fapi* circulation after June, 1940, was based on estimates made by Dr. Chi-yuen Wu, it was probably not very wide of the mark. It increased 72 times in seven years, while the price level during the same period rose about 448 times. The latter did not rise so fast during the early war years, being only 16 times at the outbreak of the Pacific War, but after that, with the tightening of the blockade, it went up by leaps and bounds.

POST-WAR COMPLICATIONS

When the end of the war was near, it was expected that a number of factors would automatically improve the situation. In the first place, the richer provinces along the coast would be restored to China, and both the supply of goods and the revenue from taxes would be increased.[6] In the second place, international lines of communications would be reopened and imports from other countries would reach China to relieve the shortage. At the same time, the reopening of the lines of communication, especially the Yangtze River, would enable goods to be shipped to the interior. At that time, the prices in Shanghai were quoted in puppet currency, but there was a market rate of conversion between puppet and national currencies. According to that rate, prices of many commodities were lower in Shanghai than in Chungking.

After V-J Day, some rise in prices in Shanghai was expected, due to the shipping of commodities to Chungking and other parts of the interior, on the one hand, and the return of the Government and other people to the vicinity of the former city, on the other. Yet it was expected that the rise would not be very great, and that competition of imported commodities would keep them down very easily.

At the same time the Japanese reparations were expected to supply the foreign exchange for the purchase of the necessary imports. Restoration of Manchuria and Taiwan would also help improve the general economic situation. If currency and price stabilization could not be achieved immediately, conditions would at least improve with time.

Contrary to expectations, however, the prices in Shanghai and Nanking, after the puppet currency was fixed at $200 to $1.00 National Currency, remained lower only for a short time, in the months of September, October and November 1945. After November, prices of a number of commodities began to climb upwards, especially that of coal, and they became higher even than those in the interior, in terms of the National Currency.

There were several reasons for this turn of events. In the first place, the puppet bank, the so-called Central Reserve Bank of Nanking, had issued, after V-J Day, over 2,000 billion dollars in puppet currency, thus doubling its circulation in two weeks.[7] The effect of this was not seen at first, because the money was distributed among the people who worked in the puppet government or the puppet army, but gradually the notes made their appearance in the market, and since, before April, 1946, they were allowed to circulate and were redeemable with the National Currency at the fixed rate of 200 to 1, this large amount of puppet notes exerted its effect on commodity prices.

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[6] Although war-time destruction was expected to affect the supply, the productive capacity of the occupied areas was still anticipated to be higher than that of the interior.

[7] According to the records of the puppet bank itself. The total issue of this bank was $4,930,256,598,800, and of all puppet banks over $5,245 billion.

In the second place, although international lines of communications were reopened, shipping space was very limited, and many commodities could not be imported from abroad. The inadequacy of shipping facilities also affected the UNRRA and Lend-Lease supplies, and imports of the former were further complicated by the problem of distribution methods in China.

Internal communications, which should have been entirely reopened as soon as railway lines had been repaired, did not come up to expectations, because some of them had to go through Communist occupied territories and others were continually being interrupted by the Reds. That was the main reason for the rise in the price of coal in Shanghai. Before the war, the coal supply of that city came from many sources, principally the Kai-lan mines near Chingwangtao, the Chunghsin mines in Shantung, and the Hongay mines in French Indo-China.[8] The internal supply of coal was cut off by warfare. There were not enough ships to transport coal from French Indo-China, although some freight space was provided to ship it from Kai-lan. Consequently, while the price of coal before the war was a little over $10 a ton, and about a few thousand dollars in Chungking towards the end of the war, the post-war price in Shanghai went up to as high as $400,000 a ton, which, at the market rate of exchange in the early part of 1946, was equivalent to about U.S. $200.[9]

Inasmuch as there was a large demand for coal by power plants and factories in Shanghai, and the inhabitants had to compete with them in obtaining coal for heating and cooking purposes, this one factor was sufficient to raise the cost of living very considerably.[10] The price of rice was also kept quite high due to the interruption of internal communications, as well as to speculation on the part of hoarders, and it was even higher than in Chungking. Of course hoarding affects prices, but goods are hoarded only when there is already a shortage.

In January, 1946, the wholesale price index number in Shanghai was 191,428, which was more than four times that of Chungking in

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[8] Investigations made by the Research Department of the Central Bank of China, Shanghai.

[9] *Ibid.*

[10] Since the price of anthracite coal is usually higher than that of bituminous coal, briquettes containing clay and the latter in powdered form are widely used for household purposes.

June, 1944, and about twice as high as the latter in June, 1945.[11] Moreover, by July of the same year, the Shanghai index was three times higher than in January, and by October, about four times. The rise was therefore at an accelerated rate. Although, after the adoption of the emergency measures on February 16, 1947, prices fell slightly from the prevailing level, they have since gone up again.

The resumption of foreign trade has not had much effect on the price situation. As the quantities of imported goods are, with few exceptions, still limited, their prices are fixed by the importers and agencies of foreign firms according to the demand and supply situation in China, and are much higher than the market prices abroad, even at the market exchange rate. At first, on account of shortage of supply abroad, the export of many essential goods to China was strictly controlled by the producing countries. Although the situation has now improved to a certain extent, some of them are still under systems of allocation or are subject to export licenses.

Under such circumstances, speculation and hoarding cannot, in spite of heavy penalties, be stamped out. The war-time profiteers who have amassed large fortunes do not therefore care to invest their capital in productive enterprises, but prefer quick returns from these illegitimate activities. Their funds, which become larger and larger as they make more and more profits, continually add to the amount of "hot" money in the market. Although the most effective measure would be for the Government to confiscate such funds, there are two obstacles which cannot be easily removed. Chinese depositors have always been free to use various pseudonyms for different bank accounts in the same or different banks, and it is difficult to prove that a certain person has large bank deposits and uses them in speculation. Even were the Chinese banks able to report such cases to the Government, the foreign banks in China, according to their practice, would keep the transactions of their clients confidential. It is also this practice that has prevented the Chinese Government from nationalizing the foreign currency deposits of Chinese nationals in other countries.

IMPORTANCE OF THE POST-WAR EXCHANGE RATE

Although, immediately after the war, the volume of foreign trade was small, the question of the exchange rate again assumed much importance. This was particularly so since China had joined the International Monetary Fund, and had to strive to find a rate which would not in the future vary within very wide limits, so that she could actively participate in its operations. At the same time, the foreign exchange resources which were possessed by the Chinese Government could no longer be used for the sole purpose of deflating the currency, but had to provide for the legitimate requirements of trade transactions, including purchases by the Government itself of goods for relief, rehabilitation and reconstruction purposes. In this respect the Government faced a dilemma involving many factors.

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[11] The Shanghai indexes were compiled by the Tung-teh Hsueh-hui of the Kincheng Banking Corporation, Shanghai, with 1936 as the base period. Like the Chungking and the pre-war Shanghai indexes, the simple geometric mean was used. It is understood that this work has been transferred to a special research institute sponsored by the same bank.

If the rate were fixed at a comparatively high level, it would encourage imports, which might exert a salutary effect on domestic prices, but exports would thereby be discouraged, and there would be a drain on the foreign exchange resources of the Government. On the other hand, if the rate were comparatively low, that is to say, if the Chinese currency were undervalued, imports would decrease, production would be hampered for lack of equipment and raw materials, and domestic prices would remain at a high level. Although several economists have tried to calculate a rate based on the purchasing power parity theory, the resultant figure, as will be shown later on, cannot be considered as an equilibrium rate under the circumstances.

Almost immediately after the war, the Research Department of the Central Bank of China began to collect price data and report them to the Bank headquarters, which, together with most Government offices, still remained in Chungking pending arrangements for shipping and housing accommodation. Quotations of certain principal commodities, such as rice, wheat, vegetable oil, coal, cotton, cotton yarn, etc., were reported daily through the Bank's own wireless station, as were also the market price of gold, the market value of American bank notes, and the market rate of interest. By this means the Bank tried to feel the pulse, so to speak, of the economic conditions in Shanghai, with a view to fixing an appropriate post-war rate of exchange. When, towards the end of February, 1946, it was found that the market value of American bank notes,–which, in the absence of active dealings in bills of exchange, was taken as an indication of the market rate of exchange–had remained fairly stable for some time, at around $2,000, the official rate of exchange was adjusted at $2,020 Chinese currency to U. S. $1.00, which was announced and made effective as from March 1, 1946. A set of liberal regulations governing imports was also announced, and the Central Bank undertook to supply exchange to importers through a number of appointed banks, both Chinese and foreign, at this rate. Of course not all applications were approved, but the supply was quite liberal, while exporters, as during the war, had to sell the foreign exchange they obtained from their goods to the same banks at the same rate.

Since there was a fundamental disequilibrium in China's balance of payments, as will be explained in the following chapter, and since the quantity of American bank notes put into circulation in China by the American armed forces began to dwindle, the value of the U. S. dollar rose. This reflected the exchange situation, for the importers, who could not obtain foreign exchange from the banks, often bought these notes and shipped them to America to pay for goods. By August 19, 1946, the difference was so large that the official rate was again readjusted to $3,350.

All these adjustments were made with some reference to the market value of American bank notes. Economists have naturally suggested the purchasing power parity as the criterion, but the interesting thing is that rates calculated on that basis would differ substantially from the market rate. If we use the wholesale price index number for Shanghai in February, 1946, which was compiled with the whole year of 1936 as the base period, compare it with the corresponding index number of the United States, and use such a ratio to adjust the pre-war China-America rate of exchange, the result would be $8,075, instead of $2,020 prevailing at that time. The U. S. index is compiled by the Labor Department, and is known as the index of the purchasing power of the dollar with respect to wholesale prices, with data for 1935–39 taken as 100. The price index of the same Department cannot be used, because its base period is 1926, but the prices in Shanghai between 1935 and 1939 did not vary very much, and it would not have made much difference to the index number if the base period were shifted from 1936 to 1935–39. Inasmuch as the purchasing power index is the reciprocal of the price index, the use of the former as such does not affect the calculations. In a similar way, figures calculated for later months of 1946 also show a wide discrepancy from the market rates. Although the latter rates are not normal, the conditions required for the application of the purchasing power parity theory are also not fulfilled under the circumstances.

Rapid deflation is very difficult, since the budget, for more reasons than one, cannot yet be balanced. The first national budgetary estimate for 1947, published in January of this year, gave a total expenditure of $9,320 billion and a total revenue of $7,000 odd billion, thus resulting in a deficit of approximately $2,200 billion.[12] According to a United Press report from Nanking of May 8, 1947, the Chinese Minister of Finance stated that the budget had been revised, and the total would be $20,000 billion, which is more than twice the former figure. In view of the existing conditions, further revisions are likely to be made later. While the total circulation stood below $4,000 billion at the end of 1946, it reached, according to the same statement, $6,000 billion at the end of April, 1947. This would give a *fapi* circulation index of 4,261, with June, 1937, as the base period.

Very recently, however, some new measures have been adopted to combat inflation and balance the budget. One of them consists in the transfer of all state enterprises except public utilities and the heavy industries, to private entrepreneurs through the issuance of stocks. Although the total value of such enterprises was once reported at an unreasonably low figure in certain newspapers, an estimate made last year by the Alien Property Administration of the value of the textile mills in Tientsin, Tsingtao and Shanghai, under the management of the China Textile Industry Corporation, a Government enterprise, reached the figure of $3000 billion.[13] This is a closer estimate, since the net profits of the Corporation amount to $400 billion a year.[14] If all state enterprises are similarly transferred, the total will reach a very large sum, which will not only help balance the budget, but also withdraw some of the notes which are already in circulation.

Another measure is the issue of U. S. currency bonds and treasury notes. The total is reported to be $400 million, consisting of $100 million of bonds and $300 million of short term treasury notes. The latter will be in five denominations, namely, U. S. $5000, $1000, $500, $100 and $50, and will bear interest at 20 per cent per annum. They will be issued on April 1 and October 1, 1947, and will mature in three years.[15] Although they will mostly be purchasable with Chinese currency at the present official exchange rate, and redeemable in the same currency at the rate prevailing at time of maturity, a portion may be used, it has been reported, in exchange for private foreign currency deposits. At the present official rate, the proceeds will amount to 4,800 billion Chinese dollars.

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[12] These figures were reported in the January 3, 1947, release of the *Chinese News Service*, New York, N. Y.

[13] *Chinese News Service* of March 18, 1947, New York, N. Y.

[14] Dr. T. V. Soong's report to the Legislative Yuan, as reported by the *Chinese News Service*, New York, N. Y., March 3, 1947.

[15] *Chinese News Service*, New York, N. Y., March 7 and 28, 1947.

Both measures will produce the best results if the response from the public be prompt. For, if subscriptions to either shares or securities be in small amounts, and extend over a long period, they will not be of much help to the currency situation. A quick and sudden reduction in the circulating media is necessary to keep prices from further rises.

EFFECTS ON BASIC PROBLEMS

The present position of currency and prices affects the basic problems in many respects. In the first place, the interest rate has gone up a good deal during and since the war, and if the pre-war rate was too high for the poorer farmers at that time, the present one must be even worse. It means also that there is such a large demand for liquid funds in the cities that less credit will be available in the rural areas. Cooperative credit will therefore be even more necessary to the farmers than before the war.

The rise in agricultural prices has some compensation for the tenants, depending upon the rent system. If rent is paid on the basis of so many dollars per acre, then it is in the nature of a fixed income to the landlord, and when prices go up, the rent cannot be increased, and his real income becomes much smaller. The tenants, for their part, will be able to retain a much larger share of the products of the land. Also, on account of the brisk demand for agricultural products, the farmers are in a better position to bargain, and they often market their products at more favorable prices. Some farmers, in fact, carry on small-scale marketing in addition to their regular farm work. The profit from the former is fairly high, and the work constitutes a sort of by-occupation.

With respect to industrialization, the high interest rate has been an important retarding effect. It makes it more difficult for industrialists to procure working capital. Although the Government, through the Joint Board of the Four Government Banks, makes loans at very low interest rates to the important industries, its funds are still inadequate. Whenever an industry has to borrow from the market, it has to pay the high interest rate, and in that way its cost of production is increased. For some time during the war, this factor was so important that many industries were unable to keep up their production.

At the same time, however, the high profits derived from speculation have tended to concentrate much capital in the hands of a small number of people and have thus promoted capital accumulation. If the capital were available to productive enterprises, it would help alleviate the price and interest rate situation, but unfortunately it is not so. In addition, as has been pointed out above, the farmers and small merchants also have larger incomes on account of the price situation, and the distribution of income among the people has changed to a certain extent. These people, having had no experience in industrial investment, are naturally unable to utilize their capital for this purpose. Hence, this part of the country's accumulated capital is of little use for industrial development or any economic reconstruction program, unless the Government adopts special measures for attracting such savings.

On the whole, however, the unstable conditions due to inflation are naturally not conducive to economic development. Few enterprises can be expected to expand when conditions are unstable and profits cannot be anticipated. Furthermore, foreign investments will fight shy in entering China. Hence, whatever advantages the price situation may have provided for economic development are more than offset by the fundamental difficulties raised above.

It is therefore plain that the most urgent problem at present is to restore some degree of economic stability. Complete stability cannot be expected in a short while, but a start in that direction must be made as soon as possible. The first task is of course to balance the budget. If revenue cannot immediately be equal to expenditure, the deficit should at least be reduced to a minimum.

The most equitable way of increasing revenue would be to levy the income tax at a much steeper rate of progression for the upper income brackets. Besides yielding a larger revenue to the Government, it would absorb the surplus purchasing power in the hands of the people, especially the richer classes. Being based on the ability to pay, it would be a most equitable measure. However, there are many practical difficulties in connection with its enforcement. In the first place, the gains from speculation and hoarding are naturally not reported, and it is impossible for the Government to ascertain such incomes. If that could be done, it would be just as easy to stamp out these activities entirely. As these transactions are illegal and punishable by law, reliance could not be placed upon any interested party to report to the income tax authorities, no matter how much inducement were held out to encourage such reporting. Yet if these incomes were not taxed, then a heavy tax on large legitimate incomes would hardly be fair.

Secondly, prices and cost of living are changing rapidly from month to month, and from week to week. What should be considered as high income brackets must also change. For instance, in 1945, a monthly income of $500,000 in Chungking was considered fairly high, but now it is the usual salary of a bank clerk. The cost of living of a middle class family of five in Shanghai, in the early part of 1946, was at first about half a million dollars a month, then it increased to one million in a few months, and now it has probably exceeded the three million mark.[16] For these reasons the tax schedules would have to be constantly revised, which would be a very cumbersome procedure. Furthermore, the cost of living as well as the rate at which it changes from time to time is different in different regions and localities, and the same rates and exemptions could not be equitably applied throughout the country.

Thirdly, while there are income tax evasions in all countries, in China at present, on account of the rapidly rising prices, any delay in tax payment would amount to partial evasion, for a dollar paid a month later would not be worth the same as a dollar promptly paid. This does not mean much to the tax-payer because the existing income tax schedule has low rates, but would make much difference to him when the rates are high.

THE ABNORMAL PRICE STRUCTURE

Some idea of the price fluctuations and the discrepancies between different cities may be obtained from the two following tables. Conditions in the rural areas are again different from those in the cities. As prices of most goods that affect the cost of living doubled in one month, from April 3 to May 3, the effect on the income tax system can be readily seen.

Of course there are other means of increasing revenue and retrenchment in expenditure which will balance the budget, but we need not go into their details. It need only be pointed out that, although it would be a difficult task, its accomplishment would still not solve the problem of price instability. Currency inflation should not only be stopped, but the Government would have to go further and bring about deflation. As has been mentioned before, the sale of state enterprises and U. S. dollar securities is apparently meant to raise revenue as well as accomplish this purpose, but unless the response of the public be very prompt, the effect would not be

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[16] These figures are mere estimates, based upon price changes of certain important items in the cost of living in Shanghai. They are not claimed to be accurate.

TABLE IV. WHOLESALE PRICES OF CERTAIN BASIC COMMODITIES IN THE LEADING CITIES OF CHINA (MAY 3, 1947)[17]

City	*Rice Medium Grade per Hectoliter*	*Wheat Medium Grade per Hectoliter*	*Vegetable Oil* [a] *per 50 kg.*	*Cotton per 50 kg.*	*Cotton Yarn (20's) per Bale*	*Coal (Slack) per Ton*
Nanking	$162,000	$132,000	$538,000	$760,000	$7,500,000	$500,000
Shanghai	230,000	115,000	540,000	909,403 [c]	6,750,000	980,000
Chungking	55,000	63,500	200,000	800,000	6,070,000	65,000
Chengtu	82,500	47,500	164,000	900,000	5,850,000	245,000
Sian [b]	300,000	210,000	380,000	740,000	5,500,000	310,000
Canton	156,000	74,400	463,000	893,000	6,960,000	...
Hankow	140,000	110,000	430,000	850,000	6,450,000	500,000
Tsingtao	312,000	368,000	460,000	780,000	8,400,000	1,100,000
Kunming	90,000	76,000	259,470	811,890	...	53,538
Lanchow	275,000	80,000	135,000	520,000	...	180,000

[a] Bean oil for Nanking, Shanghai and Tsingtao, peanut oil for Canton, and rapeseed oil for all other cities.

[b] Data for May 2, because those of May 3 had not been received at the time the *Weekly Report* was compiled.

[c] The Shanghai scale for native raw cotton is the *ssu-ma-ping*. When converted into kilograms, the price is usually not in round thousands.

[17] *Weekly Report on Financial and Price Statistics,* compiled and published by the Research Department of the Central Bank of China, Shanghai, April 28–May 3, 1947. This is the latest issue that has been received from China at the time of writing.

TABLE V. CHANGES IN WHOLESALE PRICES OF BASIC COMMODITIES, 1947

		Shanghai		*Chungking*		*Nanking*	
Commodity	*Unit*	*April 1*	*May 1*	*April 1*	*May 1*	*April 1*	*April 29*
Rice	HL	107,000	250,000	42,000	52,000	79,000	170,000
Wheat	50 kgs.	75,000	115,000	34,000 *	62,000 *	87,000 *	140,000 *
Bean oil	50 kgs.	340,000	560,000	152,000	214,000	305,000	530,000
Cotton	50 kgs.	363,761	785,394	450,000	800,000	320,000	720,000
Coal	Ton	900,000	950,000	58,000	75,000	480,000	500,000
Pork, fresh	50 kgs.	380,000	500,000	125,000	120,000	300,000	380,000
Eggs, fresh	1000	270,000	350,000	95,000	95,000	220,000	270,000
Salt	50 kgs.	45,000	55,000	61,000	61,000	65,000	80,000
Tea	50 kgs.	220,000	180,000	400,000	520,000	690,000	1,950,000

* In hectolitres.

noticeable. Moreover, if the private capitalists who take over these enterprises had to borrow their working capital from the banks, or even borrow a part of the capital for subscription to the shares, then the credit expansion would partly offset the effect of these measures. Similarly, it would be true if the U. S. dollar securities were later used by the subscribers in obtaining bank loans. This was what happened when the Government issued U. S. dollar bonds and savings certificates during the war.

Since loopholes like these must be stopped, there should also be strict control over bank credit. A more direct measure would be to limit withdrawals of deposits. This expedient was tried out in Shanghai during the early months of the war, with some degree of success. Large amounts of bank deposits were thus frozen, and the so-called *Wei-wah* system came into existence.

At the present moment, however, it would be difficult to apply this measure, for reasons similar to those mentioned in connection with the income tax. The limits had to be constantly changed, and if different limits should be set to withdrawals in different cities, deposits which are subject to stricter limitations would, other things being equal, be transferred to cities where these are less strict. Since the latter would be localities where prices are especially high, this influx of liquid funds would contribute further to increases in prices.

HOW TO ATTACK THE PROBLEM

In view of the abnormal situation as represented in the foregoing tables, the point of attack should be the prices themselves. Deflation, if successfully carried out, would cause a fall in the general price level, but would not correct the maladjustments in the individual prices. It is a pity that similar data for costs and incomes are not available, but from the price data and the general information we have concerning the former, the price-income-cost structure is quite abnormal, and varies a good deal between different cities.

Let us take the price of rice (medium grade) as an example. That in Nanking was about three times as high as that in Chungking; Shanghai, four times; and Tsingtao, nearly six times. The price of wheat was lowest in Chengtu, but that in Nanking and Shanghai were about the same. Chengtu coal price was nearly four times higher than that in Chungking; Nanking, eight times; Shanghai, fifteen times; and Tsingtao, seventeen times. Meanwhile, the difference in salaries and wages for men holding similar positions in different cities was much smaller. Many Government employees and college professors now prefer to work in Chungking, or at least to leave their families there.

An idea about raw material cost, which usually constitutes the largest cost item, may be obtained from a comparison of the prices of cotton and cotton yarn in different cities. Sian, which is in a cotton producing area, quoted the price of cotton at the low figure of $740,000 per 50 kilograms. As it is located not far from Paochi, where there are cotton mills, and as both cities lie on the Lunghai Railway, the price of cotton yarn was also low. The ratio of the two prices, as given in the table, was approximately 1:7½. In Chengtu it was less than 1:7 and in Nanking, nearly 1:10. The last case is most inexplicable since both cotton and yarn can be easily transported to Nanking on the Nanking-Shanghai Railway. Such variations in the price ratios reflect variations in the cost of production. Coal slack enters also into the production cost of many commodities, and the large discrepancies in its prices in different cities indicate to some extent the abnormality of the price-cost structure.

If the general price level should fall through currency deflation, there is no guarantee that these maladjustments will smooth themselves out automatically. Given the same transportation difficulties and shortage of supply, there should have been more encouragement to movement of goods from the low to the high price localities, when prices are rising than when they are falling. Hence these maladjustments need to be dealt with by means of specific measures, which have to do with the goods themselves.

Similarly, no mere adjustment of the exchange rate would supply the remedy. If there were so much foreign exchange available that all trade and exchange control could be abolished, there would be large imports of those commodities whose prices are exceptionally high, like coal. But a rapid fall in the price of coal might cause losses to coal mines in China, with the probable result of decreasing their production, which would offset whatever beneficial effects such imports might have on prices. Such commodities must of course be imported, but their sale in China would have to be so controlled that prices would go down gradually, and domestic production would not decrease.[18]

Besides, it would hardly be wise to abolish trade and exchange control entirely, even if foreign exchange were available in large amounts. Although China is short of most kinds of commodities, imports must be limited to the essential ones.[19] (In view of the wide discrepancies between prices in different localities, instruments of transportation, especially those that can be put to use immediately, should also have priority over most other goods.) Flight of capital took one form or another during the war, when stabilization funds were established, or foreign exchange was sold freely in the market,

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[18] It may be argued that the domestic producers may be subsidized by the Government. Since we aim at deflation, such measures cannot be considered as desirable.

[19] Wherever the term "essential commodities" is used in this volume, it does not refer to those essential to national defense, nor is it to be limited to those affecting the cost of living directly. Power plants and instruments of transportation, for instance, are included.

ISSUE OF A NEW CURRENCY

(4) At about the same time that the third step is carried out, a new currency may be issued, and a new exchange rate fixed. There are two alternative ways of carrying out this step.

(a) The old *fapi* should be entirely redeemed with the new currency at a fixed ratio, within a short period. In view of China's extensive territory and huge population, it would perhaps take a year to complete the process. The redemption of the puppet Nanking currency with *fapi* after V-J Day took seven months, although the circulation of the latter was limited to a few provinces where communications are comparatively easy. During this period there would still be price fluctuations, and the exchange rate could not be entirely stabilized. According to this alternative, the new currency is definitely linked to the old one by the fixed ratio, and any further depreciation of the latter would affect the former. In fact, the new unit would be equivalent to a higher denomination of the old *fapi*.

(b) The second alternative consists of issuing a new currency with a fixed exchange rate, but no ratio is to be established between it and *fapi*. Government employees, (including both military and civil services) educators and laborers should be paid a certain percentage of their salaries and wages in the new currency. Besides that, holders of *fapi* may apply for redemption in the new currency at the market rate, since no official rate will be fixed. The total quantity issued every month should be strictly limited to a fixed amount, beyond which no application for redemption would be granted. At the same time, importers who offer the new currency to the appointed banks would be supplied with foreign exchange at the fixed rate, provided the imports comply with the Government's trade control measures, while *fapi* would be accepted at the market rate. No attempt should be made to peg the *fapi* to the U. S. dollar at any official rate, but its value is to be maintained to a certain extent by the measures outlined under 1, 2 and 3. In this way, the value of the new currency would not be dragged down by any further depreciation of the *fapi*. It would maintain a value of its own as the American bank notes in China have done, but it has the further advantage of being in active circulation.[24]

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[24] The term "active circulation" is used because the American bank notes also circulated in China to a certain extent. They were first used in payment of goods bought by the U. S. servicemen, and later certain deals between the Chinese were also concluded in terms of them, such as payments for rent of apartments, for "key money" for houses, and for many kinds of imported goods, until it was prohibited by the Government.

Another reason for preferring a new currency not linked to the old *fapi* is that the price of gold and the value of U. S. currency in China bear no relation at all to the official price of gold in the United States. The official selling rate of one American dollar is $12,000, but the official buying price of gold is $4,800,000 per ten *shih-liang*. Since one *shih-liang* is approximately the same as one troy ounce, and the gold bars, having been imported from America, are of the same fineness, it means practically U. S. $40 for one ounce of gold.[25] The discrepancy between this and the American official price is too large to be explained as gold points. As to the market rates, the quotations for American bank notes and gold bars (of ten *shih-liang* each) were on June 3, 1947, $46,000 and $20,000,000 respectively, which gave to gold a value of approximately U. S. $43.28.[26]

Suppose the unit of the new currency be known as Sun, and its value be fixed at U. S. $0.25, then the official price of ten *shih-liang* of gold would be fixed at approximately $1,400 Sun. This would be a comparatively simple matter. If, however, the ratio between the Sun and the old Chinese dollar were also fixed, many problems would be raised. The ratio could not be arbitrarily determined, nor would it be appropriate to use as reference the official exchange rate of $12,000, the market value of American bank notes or the official price of gold. What should be used is the market price of gold, but that would give the *fapi* its lowest value. Instead of stabilizing the *fapi*, the fixing of the ratio would produce the contrary effect. If, however, no fixed ratio be given, the various steps mentioned before might serve better to strengthen the *fapi*.

The measures for currency stabilization suggested above do not agree in many respects with those adopted by most European countries after the war. On account of the long period of warfare which China underwent, and her peculiar economic conditions, especially those connected with prices, it is thought that some special measures would be required. It is on that ground that the above suggestions have been made.

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[25] As the selling price of gold is much higher than the buying price, it is more than sufficient to take care of the difference between a *shih-liang* and a troy ounce. In fact, however, the Government is not selling gold any more. One *shih-liang* is equivalent to 31.2 grams.

[26] These quotations are taken from the *Far Eastern Trader* of San Francisco, California, of June 25, 1947, p. 106.

CHAPTER VII

FOREIGN TRADE AND BALANCE OF PAYMENTS

As HAS BEEN POINTED out in the preceding chapter, domestic measures, if they are successful, may solve the urgent problem of price instability, but it is apparent that they can accomplish this much only with assistance from abroad. The European countries which have deflated their currency and stabilized their prices, like Belgium and the Netherlands, have not been through eight years of war, and they have larger productive capacity than China relative to the size of their population. Still they will have to depend on foreign credits to finance their imports. Since she has lost much of her overseas investments, the United Kingdom has found it necessary to borrow more than $3 billion from the United States, and France has been granted a loan of U. S. $500 million by the International Bank. All these show that foreign financial assistance is necessary to the war devastated countries.

It has been stated by some authorities that China had on V-J Day large foreign exchange resources, but a large part has been used to pay for imports, and what now remains is quite insufficient to meet her requirements.[1] She needs much larger quantities of foreign exchange to replace the capital goods that were destroyed, or lost, during the war, and even more for her post-war economic reconstruction and development. To stabilize prices she must import large quantities of consumers' goods, which she either cannot produce or can only produce in very insufficient quantities. If her foreign exchange resources amounted to several billion U. S. dollars, or if her exports could be multiplied to fifty or a hundred times the 1946 figure, she could import both consumers' and producers' goods to such an extent that the price level would gradually come down, and with such abundant foreign exchange in its hands the Government might also be able to contract the note issue, by simply selling the foreign exchange freely in the market, except to those who import luxury goods, or by issuing U. S. dollar bonds and treasury notes that would be redeemed in that currency. Since this is not the case, some other means will have to be found to meet the requirements of stabilization and reconstruction. We will first consider China's post-war balance of payments before proceeding further with any discussion of this question.

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[1] Arthur N. Young, *China's Economic and Financial Reconstruction,* Committee on International Economic Policy, New York, 1947, p. 5, and C. F. Remer, "Economic Reconstruction in the Far East," *American Economic Review Proceedings,* Evanston, Illinois, Vol. XXXVI, No. 2, May, 1946, p. 608.

PRE-WAR BALANCE

In a sense the balance of payments of a country gives a sort of bird's eye view of its economic relations with all other nations, because it not only shows the volume of trade, but also the capital movements into and out of the country, as well as all other kinds of inpayments and outpayments. At the same time, the effects of trade, and financial and other policies that have a bearing on its international economic relations, are also reflected in the balance. If economic stability is to be maintained simultaneously with increasing prosperity, the international payments must be balanced at a gradually rising level, and thus future policy will have to take them into account.

Although several studies of China's balance of international payments have been made, the most comprehensive one is that made by Prof. C. F. Remer, and it covers many periods. In his earlier study of China's foreign trade, published in 1925, figures representing balance of payments were given for four different periods, namely, 1871–1884, 1885–1898, 1899–1913 and 1914–1921, respectively. Some data for the last period were extended to 1930, others to 1932, and detailed figures for all items were separately given for 1928, 1929 and 1930, in his later book, *Foreign Investments in China,* published in 1933. Since, for our present purpose, reference need be made only to the more recent pre-war years, the annual balance of 1928–1930 will be quoted in Table VI on page 108.

These three years are more suitable for our purpose than later pre-war years, because Manchuria was occupied by Japan in 1931. For figures covering later years, reference may be made to Dr. Tamagna's *Banking and Finance in China* (I.P.R., New York, 1942).

POST-WAR CHANGES

During the war I made a forecast of the probable changes in the post-war balance of payments of China, and the result is given

TABLE VI. CHINA'S BALANCE OF INTERNATIONAL PAYMENTS
(in million Chinese dollars)

Outpayments	*1928*	*1929*	*1930*
1. Government debt, amortization and interest payments	63.0	79.1	111.4
2. Business investments, withdrawal of profits	179.0	198.5	198.0
3. Merchandise imports	1,794.0	1,898.7	1,964.6
4. Specie import (mainly silver)	168.7	158.7	100.5
5. Travellers and students abroad	6.0	6.0	8.0
6. Diplomatic and consular offices abroad	4.4	4.4	5.0
7. Remittances by foreigners in China-professional classes	0.5	0.5	1.0
8. Insurance	15.0	15.0	20.0
9. Motion picture royalties	...	...	8.0
Total	2,230.6	2,360.9	2,416.5
Inpayments			
1. Overseas remittances	250.6	280.7	316.3
2. Merchandise exports	1,487.0	1,523.5	1,342.3
3. Correction of export figure	74.4	114.3	134.2
4. Specie export (gold)	...	3.0	47.4
5. Tourist trade	30.0	30.0	40.0
6. Mission and philanthropic remittances	25.0	30.0	40.0
7. Diplomatic and consular offices in China	30.0	32.0	38.0
8. Foreign military and naval establishments	139.7	124.0	100.0
Total	2,036.7	2,137.5	2,058.2
Capital Items			
1. New business investments	96.0	170.0	202.0
2. Sale of domestic securities to Chinese overseas	4.0	...	...
Total	100.0	170.0	202.0
Unexplained difference	93.9	53.4	156.3
	2,230.6	2,360.9	2,416.5

here.[2] In the first place, I maintained that the exportation of merchandise would most likely decrease, on account of the smaller productive capacity, due to the war-time destruction by the enemy. Now it has been proved that this is the case. Cotton piece goods, for instance, which China exported in fairly large quantities to the South Sea area before the war, are now prohibited from export, because two out of five million spindles have been destroyed by the war. In addition, the rising costs of production and transportation have to a large extent hindered the movements of all exportable goods from China to other countries. On the other hand, the importation of merchandise could not be curtailed. The industrial and other equipment that were destroyed or dismantled during the

[2] The forecast was made in a manuscript submitted to the I.P.R. in 1943 and later shown to Prof. C. F. Remer in Chungking. It was also included in a slightly different form in a Chinese article published in the *Monthly Magazine* of the Central Bank of China, *op. cit.*, Vol. I, No. 1, January, 1946.

war have to be replaced, and since the UNRRA supplies for this purpose are not quite enough, there would have to be large imports of capital goods.[3] Many new factories, railroad lines, ships, and things of that kind are also needed for the purpose of economic reconstruction. At the same time, there was, throughout the war, so much curtailment of consumption on the part of the people that many consumers' goods are now in urgent demand. With the increase of merchandise imports which will far exceed the decrease in merchandise exports, as compared with those of the period 1928–30, the freight and insurance charges payable to foreign firms will also increase.

As to remittances of overseas Chinese, since 40 per cent of the total used to come from the South Sea area, they will also decrease.[4] One estimate of pre-war Chinese investments in this area reaches the sum of U. S. $642 million, much of which has been destroyed on account of the war, and instead of sending large remittances to China, the overseas Chinese there have to be given relief by the

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[3] Import requirements for relief and rehabilitation are estimated by the Chinese Government at U. S. $2,529,677,000, of which $945,046,000 is requested from UNRRA, but the latter's program in China amounts only to $535,000,000. Although the UNRRA supplies are in the nature of gifts, and this figure may be considered to be already quite generous, yet the discrepancy between it and the estimated requirements is very large.

[4] In Remer's *Foreign Investments in China,* The Macmillan Co., 1933, N. Y., p. 185, an analysis of the sources of remittances to Hongkong for 1930 is given, as follows:

Source		*Million Hongkong Dollars*
U. S. A.	..	119.3
Canada	..	17.5
South America	..	4.2
Straits Settlements	4.2	..
Dutch East Indies	29.4	..
Siam (Thailand)	20.0	..
Philippine Islands	12.5	..
Australia	8.5	..
French Indo-China	5.0	..
India and Burma	4.3	121.7
Other countries	..	10.0
Total	..	272.7

It is a pity that India, which is usually not included in the South Sea area, as the term is used by the Chinese, cannot be separated from Burma, but the combined total of the two is so small that their separation will not make much difference. As the overseas Chinese are mostly from Kwangtung, their remittances went mostly through Hongkong before the war. Whether the remittances from the United States, which almost equalled those from the South Sea area in amount, can be increased after the war, to make up for the loss from the latter area, is still open to question.

Government.[5] In the ten years immediately preceding the war, the total remittances from overseas Chinese paid on the average for 20 per cent of all the imports into the country. An estimate made by the U. S. Commerce Department for 1946 gives the remittances from Chinese residents in the United States to China at U. S. $20,200,000, and to Hongkong at U. S. $24,600,000.[6] As the remittances from the United States now constitute the main part of all overseas remittances, we may, for reasons given above, take the sum of the above two figures as representing the total from all sources. If we further suppose that the average rate for the year be $2,500 to U. S. $1.00, the total would amount to approximately $112 billion, or about ten per cent the value of all imports in that year. In January and February, 1947, estimates by financial circles placed the figures at 1.7 and 8.3 billion Chinese dollars, which are even lower than the 1946 amount.[7]

One item which is not included in the above table, but which might have a place in the balance of payments in the future, is the earnings of Chinese investments abroad. During 1929, when silver, and with it the Chinese currency, depreciated in value, and again during the exchange depreciation at the beginning of the war, there was much flight of capital, some of which has been more or less permanently invested abroad. If the profits from these investments and the interest on the bank deposits were withdrawn from time to time, they would constitute an inpayment. When the currency is stabilized, there may also be repatriation of capital, which will constitute a capital inflow. Under the present conditions, even withdrawals of interest and profit cannot be expected.

POSSIBLE GOLD EXPORT

As has been mentioned before, the Chinese people have bought gold from the Government, which in turn has obtained it from the United States. At present the export of specie is prohibited, nor will the owners be willing to export it when imports are licensed. With the currency stabilized and the ban lifted, export of specie may take place.[8] Also, since the American dollar is as good as gold, according to the provisions of the International Monetary Fund, the American bank notes in the hands of Chinese individuals may flow back to America by that time, and produce the same result as would the export of specie.

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[5] Data obtained from the Commission for the Affairs of Overseas Chinese, Nanking.

[6] *Far East Trader,* San Francisco, California, April 2, 1947.

[7] *Ibid.,* March 26, 1947.

[8] So far the price of gold in China, when compared with the exchange rate on New York, is not favorable to its export. Some estimates give large figures for private holdings of gold, foreign exchange, and American bank notes, but much of them are in the hands of foreigners and foreign firms in China.

One important item in the pre-war years consisted of the expenses of foreign military and naval establishments in China. These expenses increased during the war on account of the large number of American servicemen in the country, but will soon disappear completely, since the abolition of the Unequal Treaties has done away with foreign military and naval establishments, and the end of the war with Japan has also made it unnecessary for the American servicemen to remain in China much longer. Tourist trade, in view of the unsettled conditions in the country and the inadequacy of transportation facilities, cannot in the near future be expected to be larger than in pre-war times, but will rather be smaller.

Remittances by missionary and philanthropic organizations amounted to fairly large sums before the war, and during the war, for the year 1943, the Clearing Fund Board which handled these remittances received a total of U. S. $15,343,000.[9] This came from all sources including America, Great Britain, Canada, etc. It has been estimated that philanthropic remittances, principally from the United China Relief, amounted to 20 million dollars in 1945.[10] However, there is no assurance that such remittances will maintain this level in the future. The expenses of foreign diplomatic and consular offices in China will naturally not undergo much change in the next few years.

So far as principal and interest on Chinese foreign debt are concerned, they will, on account of the large amounts of foreign loans contracted, mainly during the war, be considerably larger than those in the three years given above. Meanwhile the pre-war loans from the Axis Powers will be cancelled and sterling has depreciated in terms of U. S. dollars. Expenses of Chinese diplomatic and consular offices abroad will increase because there are now, in addition to these offices, delegates to the various international conferences as well as contributions to the UN and its specialized agencies. The subscriptions to the International Monetary Fund and the International Bank for Reconstruction and Development are even larger in size, but they should come under capital items and constitute a capital outflow. There will also be larger expenses for travelers and students who go abroad to be trained in modern techniques.

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[9] Data supplied by Dwight W. Edwards, then President of the Board.

[10] Arthur N. Young, *Chinese Economic and Financial Reconstruction, op. cit.,* p. 66.

With regard to foreign business investments in China, the quantity will probably not be very large in the early post-war years, since conditions have not been stabilized there. Further discussion of this question will be made in a later connection. However, with regard to profits, since most investments belonging to Americans, Englishmen, and other Allied and Associated Nationals were confiscated by the Japanese during the war, and since Japanese and German investments are now confiscated by China, there will be no withdrawals in the near future.

The same difficulties that hinder new foreign business investments will hinder the contraction of foreign loans, which will also be considered in greater detail later. As to the sale of Chinese securities to overseas Chinese, the possibility is not very great. Those securities which are in terms of the National currency cannot be sold, while foreign currency bonds that the Chinese Government may issue may not be available for sale abroad. An experiment is just being made in selling such securities in China, mainly for the purpose of contracting the note issue.

In connection with economic reconstruction, many foreign technical men will have to be invited to China. They belong to the professional class, and remittances of that class will therefore increase. If China should adhere, as she will most likely do, to the international convention on copyrights, there will be royalties to be paid on books reprinted in China, or translated into the Chinese language. Many foreign patents will have to be used in connection with reconstruction, and royalties will have to be paid on them. These, together with those on motion picture films, will increase the amount of royalties to be paid, in spite of the temporary limitation on the import of such films.

SOME NEW ITEMS

Some new items have made, or will in the future make, their appearance. We will first take up a small item. China has obtained some ships from the United States, but she is also buying an additional number from both the latter and Canada. Some of them will probably run between Chinese and foreign ports, at least in the Far East, and they will receive payments in foreign currencies for freight shipped by firms abroad. Such payments will figure on the side of inpayments.[11]

[11] Even when freight charges are paid in Chinese currency by firms in China, it means a saving in foreign exchange on such charges.

Of much greater importance are the UNRRA and Lend-Lease supplies. The former amount to a very large sum. In 1946, according to the Chinese Customs reports, the value was, in terms of Chinese dollars, 399 billion. According to UNRRA's own reports, the total amount allocated to China will amount to U. S. $535 million. As to the Lend-Lease supplies, the American Government is supplying China with large quantities of military equipment as well as civilian supplies, which latter amounted in 1946 to U. S. $27,000,000. However, both these items will be stopped in the near future, and will in no way affect the long-run balance of payments.

What will affect the long run balance will be Japanese reparations. However, it has been the policy of some governments in the Far Eastern Commission not to make use of current production of Japan for the payment of reparations, but to use her capital equipment. Of course such equipment will be of much use to China, since she has to import large quantities of capital goods for reconstruction purposes. The difficulty is that it may cost very much in local expenditure to have some of the equipment transported and set up in China. Also, if the capital equipment should consist mainly of that of industries with which Chinese engineers and laborers are familiar, it can be put into operation as soon as it is installed in China. On the other hand, if such equipment is highly technical, and requires skilled and technical knowledge which are not at present available in China, at least not in sufficient quantity, then a further problem will be raised. Although some economists have pinned their hopes mainly on these reparations to keep the balance of payments in equilibrium, the matter may not be so simple. Such reparations may, in value, make up the balance, but if they should involve large amounts of local expenditure in their installation, they would make the currency situation even worse. Or if they should require the importation of raw materials and technical skill in large quantities, which will exert a strain on Chinese foreign exchange resources, there will also be certain reactions on the other items in the balance of payments. Hence, whether these reparations will keep the balance in equilibrium or not cannot be ascertained from their amount alone, since many other things have to be taken into account.

FORECAST TABULATED

The result of the above observations with respect to the various items that enter into the balance of payments will now be summarized in the form of a table. Where an increase is expected, a plus sign will be marked against the item concerned; if a decrease, a minus sign. A question mark will indicate comparative uncertainty of the direction of change. All expected increases and decreases are compared with the 1930 figures, in Chinese dollars having the same value as those of that year, when the average exchange rate on New York was U. S. $29.85 for $100.[12] This happened to be approximately the same as the rate adopted in November, 1935, when the new currency system was put in force, and the Chinese dollar was stabilized with respect to both the American dollar and the pound sterling. If figures in the depreciated currency of today were used in the estimates, all items would show large increases over 1930.

In Table VII, (p. 115), two columns are provided to show the expected changes in the various items, one for the early post-war years and the other for a later and longer period. Although no definite differentiation in time can be made between these two periods, the former may be considered as referring to the time during which foreign assistance is available for relief and rehabilitation and certain special and temporary measures, as contemplated in other plans of international cooperation to effect the transition from war-time to peace-time economic conditions, are carried out. The forecasts for the earlier period are easier to make than the later one, but if the tendency is expected to persist for a longer time, the same sign is placed in the second column. Although some forecasted balance of payments for China in 1947 is available, I have not tried to use such figures because expectations are apt to be unfulfilled under the existing circumstances.

It is apparent in the table that all the major items of inpayments are most likely to be, in the earlier post-war period, smaller than the 1928–1930 figures, in terms of the Chinese dollar of the same date. According to the way this table is made, the UNRRA or Lend-Lease supplies are listed under inpayments, while the value of the goods supplied are included in merchandise imports.[13] The same applies to Japanese reparations in kind. These will form the major increases in inpayments in the earlier period, while in the long run there may be other significant increases. As to the outpayments, almost all of them, including the major ones, may be ex-

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[12] *Prices and Price Indexes in Shanghai,* a special report published by the National Tariff Commission, Shanghai, in 1936.

[13] In fact, the "UNRRA" and "Lend-Lease Supplies" in the table represent the "offsetting items."

TABLE VII: EXPECTED POST-WAR CHANGES IN CHINA'S BALANCE OF INTERNATIONAL PAYMENTS

	In Early Post-war Years	*For a Longer Period*
A. Inpayments:		
1. Merchandise exports	—	—
2. Remittances of overseas Chinese	—	?
3. Net export of specie	—	+
4. Expenses of foreign military and naval establishments in China	+	—
5. Missionary and philanthropic remittances	?	?
6. UNRRA supplies	+	[b]
7. Tourist trade	—	+
8. Foreign diplomatic and consular offices in China	?	?
9. Earnings of Chinese investments abroad		?
10. Freight and insurance charges receivable by Chinese firms.		+
11. Lend-Lease Supplies	+	
B. Outpayments:		
1. Merchandise imports	+[a]	+[a]
2. Freight and insurance charges payable to foreign firms	+	+
3. Earnings of foreign business investments in China	—	?
4. Interest and amortization charges on foreign loans	+[d]	+
5. Chinese diplomatic and consular offices abroad, including China's share of expenses of international organizations	+	+
6. Expenses of Chinese students and tourists abroad	+	+
7. Remittances of foreign professional classes in China	?	+
8. Royalties on foreign motion pictures, books, etc.	?	+
C. Capital items (inpayments or capital inflow)		
1. New foreign loans	?	[e]
2. New foreign business investments (net)	?	[e]
3. Repatriation of Chinese capital abroad	?	[e]
4. Japanese reparations	+	+[e]
D. Capital items (outpayments or capital outflow):		
1. Subscriptions to the International Monetary Fund and the International Bank	+	+

[a] The plus and minus signs against merchandise exports and imports are only intended to show a wider discrepancy between them during these periods than before the war.

[b] These supplies are expected to stop soon.

[c] Since no figures are given for 1928–30, and since the amount of these items, in the early post-war years, if any, will be negligible, no plus or minus sign is affixed to them.

[d] If China should be unable to make large payments on these accounts, it is possible that they may be deferred in the early period.

[e] These items are the most important ones to equilibrate China's post-war balance of payments.

pected to show increases in both periods, and their total will be quite large.

TRADE STATISTICS ANALYZED

Although, at the time of writing, nearly two years have elapsed since V-J Day, complete trade statistics for the whole period are not yet available. The latest issue of the Chinese Customs Returns for the current year that has been received in this country is that of March, 1947. Since figures for two complete years cannot be given, it is therefore better to limit the discussion of trade statistics to those of 1946 only. They are given in summary form in Tables VIII and IX, (pp. 116-17):

TABLE VIII: IMPORTS INTO CHINA IN 1946

Group No.	*Kinds of Commodities Included*	*Value Imported*
I.	Cotton Piece Goods, Grey	3,743,589
II.	Cotton Piece Goods, White or dyed	37,364,524
III.	Cotton Piece Goods, Printed	3,019,084
IV.	Cotton Piece Goods, Miscellaneous	3,708,161
V.	Cotton, Raw; Cotton Yarn, and Cotton Thread	336,917,428
VI.	Cotton Manufactures, Sundry	6,314,537
VII.	Flax, Ramie, Hemp, Jute, and Manufactures thereof	16,925,524
VIII.	Wool and Manufactures thereof	74,437,016
IX.	Silk (including Artificial Silk) and Manufactures thereof	1,239,576
X.	Metals and Ores	76,272,195
XI.	Machinery and Tools	43,031,801
XII.	Vehicles and Vessels	97,905,413
XIII.	Miscellaneous Metal Manufactures	51,257,981
XIV.	Fishery and Sea Products	11,679,810
XV.	Animal Products, Canned Goods, and Groceries	31,589,599
XVI.	Cereals and Flour	38,756,033
XVII.	Fruits, Seeds, and Vegetables	18,182,861
XVIII.	Medicinal Substances and Spices	7,386,259
XIX.	Sugar	2,188,586
XX.	Wines, Beer, Spirits, Table Waters, etc.	1,480,313
XXI.	Tobacco	55,483,205
XXII.	Chemicals and Pharmaceuticals	95,147,798
XXIII.	Dyes, Pigments, Paints, and Varnishes	61,346,604
XXIV.	Candles, Soap, Oils, Fats, Waxes, Gums, and Resins	174,075,982
XXV.	Books, Maps, Paper, and Wood Pulp	95,271,565
XXVI.	Hides, Leather, and other Animal Substances	24,885,187
XXVII.	Timber	25,127,315
XXVIII.	Wood, Bamboos, Rattans, Coir, Straw, and Manufactures thereof	7,051,743
XXIX.	Coal, Fuel, Pitch, and Tar	7,843,499
XXX.	Chinaware, Enamelware, Glass, etc.	4,452,402
XXXI.	Stone, Earth, and Manufactures thereof	7,600,079
XXXII.	Sundry	79,479,577
	Total	1,501,165,246

* In thousands of Chinese National Dollars.

From the given figures it may be seen that Chinese exports paid only for approximately 27 per cent of her imports, leaving 73 per cent as an import surplus. In the ten years immediately preceding the war, the former paid in the average for 76 per cent of the latter. The amount of the import surplus in 1946 was 1,089 billion Chinese dollars. Converted at the average exchange rate to $2,500 to U. S. $1, it was equivalent to about U. S. $400 million. UNRRA supplies were not included in the import figures, but Lend-Lease supplies were. The latter amounted to U. S. $27 million, and by deducting it from the sum given above, there was left a net outpayment on merchandise account of U. S. $373 million. Since all this foreign exchange was supplied by the Chinese Government, the drain on its foreign exchange resources was quite heavy.

The largest category among the imports was Group V, which totalled nearly 337 billion Chinese dollars during the year, or about 22 per cent of the value of all imports. Although this group included cotton waste, cotton yarn and cotton thread, as well as raw cotton, the last item alone was valued at 335 billion. The second largest group was XXIV, among which various kinds of mineral oils,—gasoline, kerosene, etc.—constituted the principal items. Its value amounted to 174 billion Chinese dollars. Three other groups, XII, XXII and XXV, all came near the billion dollar mark, while

TABLE IX: EXPORTS FROM CHINA IN 1946

Group No.	*Kinds of Commodities Included*	*Value Exported*
I.	Animals, and Animal Products (not including Hides, Leather and Skins [Furs], and Fishery and Sea Products)	87,828,901
II.	Hides, Leather, and Skins (Furs)	23,108,153
III.	Fishery and Sea Products	1,849,798
IV.	Beans and Peas	3,502,061
V.	Cereals and Cereal Products	2,127,842
VI.	Dyestuffs, Vegetable	684,349
VII.	Fruits, Fresh, Dried, and Preserved	6,978,048
VIII.	Medicinal Substances and Spices (not including Chemicals)	16,452,677
IX.	Oils, Tallow, and Wax	71,393,676
X.	Seeds	3,126,918
XI.	Spirituous Beverages	1,194,590
XII.	Sugar	600,879
XIII.	Tea	15,340,617
XIV.	Tobacco	2,982,717
XV.	Vegetables	7,993,614
XVI.	Other Vegetable Products	4,887,535
XVII.	Bamboo	1,066,659
XVIII.	Fuel	4,259,055
XIX.	Rattan	35,483
XX.	Timber, Wood, and Manufactures thereof	3,181,491
XXI.	Paper	5,228,624
XXII.	Textile Fibres	39,643,641
XXIII.	Yarn, Thread, and Plaited and Knitted Goods	16,426,188
XXIV.	Piece Goods	16,228,529
XXV.	Other Textile Products	12,135,955
XXVI.	Ores, Metals, and Metallic Products	23,237,143
XXVII.	Glass and Glassware	1,311,962
XXVIII.	Stone, Earth, Sand, and Manufactures thereof (including Chinaware and Enamelware)	3,686,771
XXIX.	Chemicals and Chemical Products	13,346,135
XXX.	Printed Matter	783,455
XXXI.	Sundry	21,488,345
	Total	412,111,811

* In thousands of Chinese National Dollars.

six others—groups VIII, X, XIII, XXI, XXIII, and XXXII—were above half a billion. Most of them were capital goods or industrial raw materials, for even in Group XXI, more tobacco leaves than cigars and cigarettes were imported. Also, while kerosene is for direct consumption in China as lamp oil, gasoline is used more in airplanes, trucks and buses than in passenger cars.

With regard to the countries of origin, the United States stood far above all others, being responsible for more than a half of China's total imports. Arranged according to the degree of their importance, the suppliers of China's imports in 1946 which contributed more than one per cent of the total were as follows:

Country or Territory	*Percentage*
U. S. A.	57.16
British India	8.75
Great Britain	4.59
Hongkong	4.48
Brazil	4.08
Mexico	2.35
Straits Settlement and F.M.S.	2.02
Canada	1.81
Switzerland	1.77
Australia	1.39
Iran	1.30
Sweden	1.22
Belgium	1.05

It is quite plain that most of them were countries or territories which had not suffered from the war. Japan, Germany, France and the Netherlands, which used to occupy important positions in China's import trade, now dwindled into insignificance. As before, much of Hongkong's trade must consist of trans-shipment of goods from other countries.

CHINA'S EXPORTS

As to China's exports, the most important group was Group I, animals and animal products. If this is combined with hides, leather and skins in Group II, their value exceeded the 100 million mark. Of the animal products, bristles constituted the principal item, being valued at 67 million dollars out of a total of 88 million for Group I. They are light and easy to transport, and their export was kept up even during the war. Egg products, which formed one of China's principal exports before the war, have lost their markets on account of American competition.

Another large group of exports was oils, tallow and wax, of which *tung* oil was the most important item. Of the total value of 71 million dollars for this group, *tung* oil represented 68 million. The third important commodity was raw silk, whose export amounted in value to over 30 million dollars, out of a total of 39 million for Group XXII. After that came Group XXVI, representing ores, metals and metallic products, valued at over 23 million Chinese dollars. These included antimony, wolfram, tin, mercury as well as other minerals. In 1936, the value of tin ingots and slabs exported was 26 million in pre-war Chinese dollars, larger than the total value of the group in the inflated currency of 1946.

In quantity, most of the exports fell below that before the war, including *tung* oil, which was less than one half that of 1936. The figures for these two years were 867,383 and 352,638 quintals respectively. Steam filature raw silk dropped to one quarter of its earlier figure. Less discrepancy existed in the case of bristles, of which 5.2 million kilograms were exported in 1936 and 4.7 ten years later. It was the only export which maintained about the pre-war level in quantity.

Analyzed according to their destination, the United States again led the list, but the percentage was only 38.71. Next came Hongkong, taking up 28.25 per cent of China's total exports. Here the position of that island as a port of trans-shipment was more obvious, since it could not possibly consume so much on its own account. Hongkong is a free port, and if the real destination of the goods was the United States, for instance, the exporter could, through such trans-shipment, avoid handing over American exchange to the Central Bank of China. The Hongkong exchange rates were also more favorable to the exporter than the Chinese official rates. Besides Great Britain, the U.S.S.R., and British India, each of which took up about 5 per cent of China's exports, all other countries and regions were of no great significance, especially in view of the small total value of all exports.

Thus China's post-war exports are, if the 1946 figures may be taken as an indication, very small both absolutely and relatively to their pre-war ratio to imports. There are many explanations for this situation. In the first place, the high cost of production and internal transportation has made exporting an unprofitable business, in spite of revisions in the exchange rate. A further and more drastic revision is apparently necessary. In view of the large proportion of exports that went through Hongkong, it seems that the Hongkong exchange rates on New York, London, and Shanghai should be taken into account.

Secondly, many of China's former markets have suffered from the war, and do not have the same purchasing power as they had before. In the United States, the only country whose purchasing power has not diminished, domestic production of certain commodities, like soybean and egg products, has increased considerably, and will not only compete with Chinese products within her own borders, but also in other markets. The remedy to this situation, as will be pointed out in the following chapter, lies almost entirely in the hands of the United States.

Finally, the use of substitutes, like nylon and other synthetic products, has reduced the demand for silk and, to a certain extent, other kinds of Chinese exports also. Raw silk has mainly been used in the manufacture of hosiery in America. Since nylon is cheaper and its qualities are more suitable for the purpose, competition with it in this field is almost out of the question. This synthetic product is even displacing bristles in the making of brushes, although China's post-war exportation of the latter has so far maintained a fairly high level. Perhaps the only principal Chinese export which will not be affected by American domestic production, or her use of substitutes, will be *tung* oil. As there are special volumes on such subjects, no detailed discussion of the prospects of these exports will be entered into here.[14]

Merchandise trade is the main item in the balance of payments. Since China has a large import surplus, and the prospects of increasing her exports are not very bright, some other means of maintaining the equilibrium in the balance must be found. To these we will turn in the next chapter.

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[14] Chih Tsang, *China's Post-War Markets,* published by the Institute of Pacific Relations, New York, 1945.

CHAPTER VIII

SOLUTIONS TO CHINA'S INTERNATIONAL ECONOMIC PROBLEMS

IN VIEW OF THE FUNDAMENTAL disequilibrium in her balance of payments, as has further been borne out by the trade statistics of 1946, some solution to China's international economic problems is urgently needed. I will first state what China has done along this line and then discuss the more fundamental solutions.

At first the Chinese Government decided to pursue a comparatively liberal policy in these connections. According to the foreign trade and foreign exchange regulations promulgated on February 25, 1946, little control was exercised over the former, and applications for foreign exchange were also freely granted. According to the foreign trade regulations, imports were classified into three categories: (1) those which might be freely imported; (2) those whose importation had to be licensed; and (3) those which were banned. The last category included only 22 out of a total of 672 items listed in the Import Tariff Schedule. They were all luxuries, such as perfumery, lace, embroidered goods, etc. Passenger automobiles whose net f.o.b. factory cost to dealers exceeded U.S. $1,200, and chassis thereof, were also prohibited, but those below that price might be imported under licenses. Some luxuries, like pearls, precious stones, liquors, cigars, cigarettes, etc., were allowed to be imported upon payment of a surtax amounting to fifty per cent of the original tariff rate.

The import licensing system applied not only to the automobiles mentioned above, but also to sugar, tobacco leaves, kerosene oil and developed cinematographic films. It was meant to limit the amount of their importation. In addition, the commodities that had been licensed during the war in order that they would not get into the hands of undesirable people, such as ammunition, aviation instruments and equipment, chemicals that might be manufactured into explosives, anesthetics, and wireless instruments, continued to be imported under license. All other commodities might be freely imported.

Schedules A and B covered the imports, while Schedule C listed the goods whose exportation was banned unless by special permission of the Government. First among these were the minerals controlled by the Government and used in barter trade agreements or for the repayment of foreign loans; namely, wolfram, antimony, tin and mercury. Specie coins of all denominations, salt, rice, paddy, wheat, wheat flour, cotton yarn and cloth, important Government documents and a few miscellaneous articles were also included in the list.

At the same time, the official exchange rate which had remained at \$20 to one American dollar was changed so that U.S. \$1.00 became equivalent to \$2,020 in Chinese currency. This new rate was adopted because the black market rate had gone up to this level. For a long time the former official rate had been nominal, for the Government had practically ceased to supply foreign exchange to importers and, at the time of the readjustment, the black market rate had for some time remained more or less stable at \$2,020. It was thought by some people that, through the adoption of this new exchange rate, a temporary equilibrium in the balance of payments might be attained, especially as many kinds of commodities—food, clothing, medical supplies and certain capital goods for the rehabilitation of the country—were to be supplied by UNRRA and under Lend-Lease, and no foreign exchange would be needed to pay for them.

TIGHTENING OF TRADE CONTROLS

Unfortunately, however, this expectation of a temporary equilibrium was not realized. There was a large excess of imports over exports, which could not be made up with other inpayments. A large portion of the foreign exchange resources at the Government's disposal was used up to meet the requirements of the importers. Consequently, the Temporary Foreign Trade Regulations were revised, and made effective on November 17, 1946. A Board for the Temporary Regulation of Imports was set up under the Supreme Economic Council, now reorganized into the National Economic Council.

According to the new regulations, which are still in force at the time of writing, imports are under four schedules. Schedule I consists of capital goods for the importation of which foreign exchange is freely supplied by the Government. These goods enjoy a priority over all other commodities. Goods in Schedule II are imported under quotas, fixed by the Board and allocated by the Allocation Department of the Board. The Allocation Department notifies the respective trades of the quotas and directs each trade to apportion its quota among those importers who have been registered with the Board in respect of that trade. If the importers in any trade fail to agree upon apportionment among themselves, the Allocation Department will determine it for them. Besides the commodities already subject to license under the regulations of February 25, 1946, this schedule includes such articles as dyes, fertilizers, cement, coal and coke, raw cotton, rice, wheat, wheat flour, metals, chemicals, many kinds of mineral and vegetable oils, etc. Wool and woolen yarn, artificial silk yarn, timber, and rubber and rubber manufactures are also in this schedule.

Schedule III is divided into two parts, a and b. A large number of articles (119 tariff numbers) are included in III-a, but the Board may modify the list from time to time. Licenses are required for the importation of goods listed, but this does not mean that every application will be granted. Goods now listed range from agar-agar to motor-cycles, from books to cod-liver oil, from leather to electric cookers. Those that are not in the list constitute Schedule III-b, the importation of which are temporarily suspended. Those goods which are prohibited from importation under Schedule IV are luxuries, and the list is much longer than that of February 25, 1946, although still not exceeding 39 items. While pearls and precious stones were then allowed to be imported upon payment of a surtax, they are now definitely banned. There is also another schedule—Schedule V—listing the goods which should not be exported, and these are the same as those listed in the earlier regulations.

While trade control has been tightened, the varieties of goods which are absolutely prohibited from importation are still limited to a small number, and are non-essentials from the Chinese point of view. Schedule III is purposely made very flexible, which means that if sufficient foreign exchange is available, more goods will be transferred from Part b to Part a, and allowed to be imported. In the same way, the quotas for Schedule II can be increased when circumstances allow. All these show that the Chinese Government has limited imports only because the exchange situation is not favorable to her; otherwise it is quite ready to permit free importation of all goods except those which are purely luxuries.

These measures serve to limit imports, but exports need to be encouraged. Although the official exchange rate had been readjusted to $3,350 per U. S. dollar, the rate itself was still too low to be of much help. Hence an Export Promotion Commission was established, and a subsidy of 100 per cent was offered to exporters, while importers were made to pay a 50 per cent surcharge on the value of their imports. Exemptions from this surcharge were granted to commodities in Schedule I and a number of items in Schedule II, such as wheat and wheat flour, coal and coke, raw cotton, fertilizers, etc. These were announced on February 5, 1947, and the surcharge was to take effect on February 6.

The name "export subsidy" was really a misnomer, because both measures were intended only to modify the exchange rate. Instead of $3,350, the exporter was to be given $6,700 for every U. S. dollar he handed over to the Central Bank, while the importer was made to pay $5,025 for each U. S. dollar he bought from the Bank. Unfortunately some misunderstanding arose on this account, and speculators also took the opportunity to further boost domestic prices. As a result, the Government was obliged to adopt emergency measures on February 16, abolishing these multiple rates of exchange, and fixing a new rate at $12,000 to one dollar in U. S. currency. The Revised Temporary Foreign Trade Regulations of November 17, 1946, are still in effect, and in addition the Foreign Exchange Regulations of February 25, 1946, have been modified. An importer who has received a license for the importation of a certain quantity of goods now receives automatically the foreign exchange needed for the transaction.[1]

All these regulations are intended to operate only temporarily, but in view of the general economic situation in China and throughout the world, it is very doubtful that they will effectively serve their purpose.

POSSIBLE ALTERNATIVE MEASURES

It may appear at first sight that a further and more adequate adjustment of the exchange rate is all that is needed in coping with this situation, but it leaves out of account several important considerations. In the first place, it is almost impossible to determine an appropriate exchange rate when prices are fluctuating so violently. The purchasing power parity theory cannot afford us much guidance under such circumstances. Also, the price index numbers in different Chinese cities, though they are compiled approximately in the same manner, differ very widely, because internal transportation is difficult, and the country is practically cut up into a number of economically semi-independent regions. This situation has its advantages, as we shall see later on, but it makes the determination of an appropriate exchange rate much more difficult.

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[1] On August 15 the Regulations were revised, but only minor modifications were introduced. The original schedules still remained in force. However, the controlling Board was reorganized, and the promotion of exports became one of its duties.

Even if we assume that monetary inflation can be stopped in the country, the problem is not much simplified thereby. The exchange rate must either be fixed at the same time that such financial measures are carried out, or soon after inflation has been to a large extent curbed. These two things are closely inter-related, unless we follow the Japanese example and leave the exchange rate out entirely. Since, at that time, the price-income-cost structure will still be in a state of flux, any rate that is fixed will have to be revised again, unless China is willing to sacrifice a sound economic structure to some arbitrary rate. So far there have been three revisions of the rate, and every revision has caused domestic prices to rise, but none has helped materially to balance China's international payments. Also, although the Belgian, Dutch and several other European currencies have been stabilized, these countries are still confronted with serious balance of payments problems. It has been estimated that most European nations will be unable to pay for their imports in little more than a year, which shows how the mere stabilization of exchange rates does not necessarily solve the fundamental problem, and such stabilization may turn out to be only temporary.

Secondly, an adjustment in the exchange rate, to serve its purpose, must increase China's exports to such an extent that they will pay for the increased imports necessary for the stabilization of domestic prices. No rate can be expected to fulfil these conditions, especially under the present circumstances. The most that may be expected from a drastic devaluation of the Chinese dollar in terms of foreign currencies is a large decrease in imports and some small increase in exports. In other words, visible trade might be better balanced, but at a very low level, since both China's post-war productive capacity and her markets are smaller than before.

The above remarks are not meant to indicate that the exchange rate need not be revised, or that its revision will always bring more harm than good. What is meant is that rate revision cannot accomplish much by itself, and cannot be successfully carried out unless accompanied by other necessary financial measures.

Another suggested remedy is to maintain a free exchange market, at least for a certain length of time, so that the rate will find its own level. But the level will be the equilibrium rate only if we presuppose a fundamental equilibrium in the balance of payments. Since that is not the case, the rate will deteriorate all the time, and there will be much flight of capital, under one guise or another. The latter will accelerate the deterioration and there will be less stability in prices as well as in the general economic situation as a whole.

Before the war was over, it was thought that the International Monetary Fund would be able to help maintain currency stability in most member countries, and their needs for economic reconstruction and development would be taken care of by the International Bank. No doubt these two organizations will be of much help in their respective fields, but the scarcity of U. S. currency in the Fund, as envisaged in the Fund Agreement, will turn out to be a more serious problem than was at first expected. According to a newspaper article, the world dollar deficit in 1947, based on figures of the U. S. Department of Commerce for the first quarter, is estimated at $12 billion.[1a] A more conservative estimate gives total American exports at $16 billion and imports at $8 billion, showing a discrepancy of $8 billion. As shown in the Report of the Executive Directors of the Fund of their first annual meeting, the total of all quotas on October 3, 1946, amounted only to U. S. $7,473.5 million.[2] The members left out of the list, besides the U.S.S.R., were Australia, New Zealand, Venezuela, Haiti and Liberia, and the quotas of these five totaled only 270.5 million. Even if the U.S.S.R. should finally decide to join this organization, the grand total of all quotas would still not exceed U. S. $9 billion.

Of these quotas the members are required to pay in gold either 25 per cent of their subscriptions or ten per cent of their official holdings of gold and U. S. dollars, whichever figure is the smaller one.[3] The remainder is paid in their own currencies. This means that, of less than 8 billion dollars which represents the total of all subscriptions, no more than two billion will consist of gold, and a little more than two billion will consist of American currency paid by the United States as the remaining part of its own quota. In four to six months, according to the above estimates of world dollar deficit, this part of the Fund will be exhausted and nothing but "soft" currency will be left in the hands of that organization.

As far as China is concerned, she has not yet notified the Fund of the par value of her currency. Her import surplus in 1946, as has been shown in the preceding chapter, was small and amounted to only U.S.$373 million. Of this a small proportion need not be paid in U. S. currency. Yet, when the latter becomes very scarce in the Fund, on account of the huge demand of most member countries, it is doubtful if China would be able to make much use of the Fund's resources even if she should have complied with all the requirements of membership.

[1a] *New York Times,* New York, June 22, 1947, p. E5.

[2] Appendix G of the Report, p. 117.

[3] Agreement of the International Monetary Fund, Article III, Section 3(b).

Funds for reconstruction projects should come from the International Bank, according to the original agreements made at Bretton Woods. However, the resources now at the disposal of the Bank are even more limited. Although twenty per cent of the total capital that had been paid in amounted on April 30, 1947, to U.S.$1,760,-225,000, approximately one billion consisted of "soft" currency.[4] The limited amount in gold and U. S. dollars limits the Bank's ability to make direct loans in American currency. However, it is understood at the time of writing that bonds of the Bank will be floated soon, and if the first experiment is successful, further issues will probably be made. On the whole it means that the Fund and the Bank are by themselves unable to cope adequately with the international situation, and the last resort is to American investors. How American investments can help stabilize the world economic situation in general, and that in China in particular, will be discussed in a later connection.

JAPANESE REPARATIONS

It was at first thought that China's needs for economic stabilization and reconstruction would be largely supplied from Japanese reparations. One Chinese economist estimated the damage done by Japan to China at U.S.$5 billion.[5] If this sum were paid in cash, starting from 1946, over a period of ten years, it would solve many of China's economic and financial problems. In the first place, the Chinese Government would have large annual receipts with which to balance her budget and reorganize her currency. Sums of this magnitude to a nation that had suffered eight years of aggression could not be considered at all excessive. If Japan did not have large foreign exchange resources, she at least had sufficient quantities of gold. It is a well-known fact that she supplied the various puppet banks in China freely with gold bars, as reserves against their note issues. But these reserves in Manchuria were removed by the U.S.S.R. and those in the other banks were to a large extent removed by the

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[4] Yuen-ting Shen, Chinese Executive Director of the Bank, *A Report of the International Bank for Reconstruction and Development,* mimeographed, Washington, April 30, 1947, p. 5.

[5] Article by Wu Chi-yuen, in the *Ta Kung Pao,* Chungking, Chinese daily paper, of April 22, 1945.

Chinese traitors. The gold in the vaults of the Bank of Japan, as well as whatever foreign exchange resources belong to the Japanese government, is now probably kept for the sake of stabilizing the Japanese currency. Hence, no cash payments will be made to any country.

Payments in kind can also be of great value to the receiving country. Unfortunately, these are limited to industrial equipment, and mainly that of the heavy industries. No current production is to be used for the purpose, nor any equipment of such light industries as cotton spinning and silk reeling. Of course the acquisition of other industrial equipment as reparations will help in China's economic development, but it is not of the kind that she urgently needs.

In solving China's economic and financial problems, the time element is most important. It would have been ten times easier to stop the inflation a year ago, and will be perhaps fifty times harder a year hence. If the reparations were available early last year, payable in cash, much of the economic difficulties in China might have been avoided. Current products, if they could be of the kind that is most urgently needed in China, would serve the purpose as well, but these are not available. Industrial equipment which can be put immediately into operation, and made to produce goods right away, is preferable to that for which time has to be taken to train the necessary personnel, or which produces goods that are themselves only of use to future economic development. In either case, its transfer to China is of no great help to the solution of her fiscal problems, since it may not be readily saleable to private entrepreneurs, thus producing revenue to the Government. On the contrary, the latter has to pay for the expenses of operation, in addition to the cost of transportation and installation. If it takes a long time to begin production, or if the products are not in great demand by the public, the salutary effect on China's currency and finance will be felt only in the distant future.

Although interim reparations have been decided upon, the final settlement is not yet in sight. What and how much China will receive altogether as reparations is yet uncertain, and for this reason the time value of such reparations is much diminished.

It is understood that the standard of living of the Japanese will be maintained at the level that existed in 1930–34, which was slightly lower than that in later years. To that end peaceful industries are to be developed, and care is taken to supply the people with sufficiently nutritive foodstuffs. It may be pointed out that the Japanese standard of 1930–34 is much higher than that of China during and after the war. Although the Chinese people have no intention of making the Japanese suffer out of revenge, yet they would be within their rights to expect their own living standard to be raised at least to the same level as that of the latter.[6]

TAIWAN

Much emphasis has been laid on China's acquisition of the Japanese enterprises in China and the restoration of Taiwan to her. As has been pointed out in an earlier chapter, the importance of these is not as great as it appears at first sight. Besides, the former has nothing to do with the supply of foreign exchange, unless they be taken over by other foreign investors. Concerning Taiwan, for instance, there were export surpluses before the war, it is true, but the present trade situation is quite different. Taiwan's exports consisted mainly of rice and sugar, which together were valued at about 90 million yen in 1937, out of a total export volume of 126 million.[7] Because the Japanese Government had ordered a curtailment in the planting of sugar cane during the war, the acreage cultivated for this crop has decreased considerably. After taking over the island, the Chinese Government has tried to increase sugar production, but it is confronted with the problem of chemical fertilizers, since the fertilizer plant on the island was destroyed during the war. Also, it takes two years to raise a crop of sugar cane and more than a half of the sugar refineries have to remain idle meanwhile.[8] What this means to the export surplus of Taiwan is obvious.

In 1936, Taiwan's exports were valued at 112.5 million yen, and imports at 84.9 million, yielding a surplus of 27.6 million.[9] At the exchange rate then prevailing, this was equivalent approximately to only U.S.$9 million. Even were conditions restored to those of that year, this import surplus would amount only to about 2½ per cent of China's import surplus in 1946. If Taiwan rice is used to supply the shortage in China, it will diminish the exports of the island to the extent that it will curtail the imports of China.

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[6] The writer has no connection with the Far Eastern Commission, but has obtained the necessary information from those who have. Any opinion expressed in these connections is entirely that of the writer himself.

[7] *Civil Affairs Handbook—Taiwan—Economics Supplement,* published by the Office of the Chief of Naval Operations, Navy Department, Washington, June 1, 1944, p. 72.

[8] Information supplied by C. S. Pan, who held a responsible position in the Sugar Factory Commission from October 1945 to July 1946.

[9] Same as footnote 7.

After all, it should be remembered that Taiwan had always belonged to China, but was taken away from her by Japan in a previous war. Its restoration, therefore, has nothing to do with reparations, any more than Alsace and Lorraine would have figured in German reparations to France after World War I. On the other hand, out of some international understanding in which China did not participate, complications have arisen and delayed the restoration of Manchuria to China. There seems to be a moral responsibility on the part of certain foreign powers to obliterate the economic and other effects on China resulting from such delay.

Since neither Japanese reparations, nor the restoration of Taiwan to China, can solve her problem of economic stabilization, some other means must be sought. That means is foreign credits. Before we consider their possibility and the necessary conditions that China must fulfil, let us first face the naked fact that all nations need credits in the American currency.

The industrially advanced nations of Europe, like France, Belgium, the United Kingdom, and the Netherlands, have their postwar economy stabilized to a large extent, but they still need large loans for reconstruction purposes. France has obtained U.S.$500 million from the International Bank, while Great Britain has been supplied with over $3 billion by the United States. According to a newspaper article, the latter loan was originally intended to last five years, but one-half of it has already been spent in eleven months.[10] The total credit required by the European nations in 1948 has been variously estimated at from four to six billion U. S. dollars, without which they would not be able to pay for their necessary imports. The situation has been referred to as the European crisis. If it is true of Europe, how much more so is it of China?[11]

SOME CONDITIONS CONSIDERED

Among the Americans the view is often held that China must first attain a certain degree of political and economic stability before foreign financial assistance will be forthcoming. Although this view is quite reasonable, we must not forget that, on account of the facts that have been mentioned in several connections in this volume, China is not solely responsible for her present predicament, and is for that reason unable to fulfil these conditions. It is beyond the power of the Chinese nation or the Chinese Government at present to stop either the civil war or the inflation. Chaotic economic conditions are favorable to the Communists, and the longer the war drags on, the stronger their position will be. In fact, they are capitalizing on the social unrest which arises from such economic instability, and can play a waiting game. No terms short of complete capitulation on the part of the Government will now be acceptable to them. As to how the Communists, when they gain control of the whole country, will solve the intricate problems of economic stabilization and reconstruction, it is a question that does not admit a simple answer.

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[10] "Britons Now Face New Import Curbs and Tighten Belts," an article in the *New York Times*, New York, June 8, 1947. As mentioned in a special correspondence by Mallory Browne to the *New York Times*, September 16, 1947, the United Kingdom still had a gold reserve worth about U.S. $2,320,000,000.

[11] China does not need such large amounts, but her need is more urgent.

It is no use to regret, as a Chinese friend of the writer does, that at one time some years ago there was a possibility of reconciliation between the Chinese Government and the Communists. Conditions have changed considerably since, and we must face the situation realistically as it exists today.

Even should we concede that the Government and the Communists could come to terms, it does not necessarily follow that the inflation would be automatically and immediately stopped. Although it is true that there are heavy military expenses on account of the civil war, such expenses could not be curtailed overnight. Several tens of divisions of Communist troops would have to be maintained in the regular standing army, which is one of the important terms that party has insisted upon. In addition, large amounts have to be spent in paying the disbanded soldiers and reinstalling them in productive work. If a number of provinces were to be under Communist administration—which is another of their original terms—it is likely that the revenue of these provinces would be kept for local purposes, and not made available to the Central Government. All these factors do not guarantee a balancing of the national budget in the near future, let alone solving the other problems of economic stabilization.

By bringing up the above considerations, I do not mean to oppose a peaceful settlement of the civil war. If that could be done, it would probably be a quicker solution of the political problems. However, what I am interested in are the economic problems of stabilization and reconstruction, of which the former is the more urgent. The Chinese people, and not this or that political party, have borne the brunt of the suffering. They need economic stabilization as they need relief. UNRRA did not delay its relief work until domestic political disputes were patched up; it seems that the same should apply to measures of economic stabilization.[12] The cause of the inflation, as has been pointed out in an earlier chapter, was the Japanese War, and its cumulative effects are now being felt. The condition in China is different from that in Belgium or the Netherlands, where deflation and stabilization could be easily carried out by the nation itself. Rather, China is in about the same position as Greece. Like a man who has been sick for ten years, China's own power of resistance cannot be counted upon to pull her through the present crisis.

There is a sort of vicious circle connected with this question. Foreign financial assistance will not be forthcoming until there is political stability in China, which, as has already been pointed out, is impossible without economic stability. Yet economic stability cannot be attained without foreign financial assistance, because without the latter the supply of goods cannot be rapidly increased, prices will continue to rise in leaps and bounds, and the currency cannot therefore be stabilized. Somewhere a link in the circle must be broken, and, in the opinion of the writer, it is certainly not the political link.

CHINA'S NEED OF FOREIGN EXCHANGE

The pressing problem of China is therefore to obtain foreign exchange for the stabilization of her prices. Although it is stated by some foreign authorities on China that she had large resources of this nature at the end of the war, that is no longer true.[13] As may

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[12] Foreign assistance must of course be coupled with certain domestic measures mentioned in Chapter VI.

[13] According to the *Federal Reserve Bulletin* of May and June, 1947, the short-term U. S. dollar assets and liabilities of China, including Manchuria, were for various months as follows. Her assets are listed as liabilities of the United States on pages 621 and 761, and her liabilities as assets of the latter on pages 622 and 762 (in million U. S. dollars). They include both official and non-official holdings, both of which had been used to pay for imports. The rate of decrease had ranged from 20 to 60 million a month.

Month	*Assets*	*Liabilities*	*Net Assets*
Jan. 1946	756.3	7.7	748.1
Feb. "	738.0	9.7	728.3
Mar. "	732.1	22.8	709.3
Apr. "	717.0	25.6	691.4
May "	695.4	22.6	672.8
June "	657.0	23.9	633.1
July "	611.9	19.0	592.9
Aug. "	561.8	28.6	533.2
Sept. "	525.3	34.7	490.6
Oct. "	490.1	34.6	455.5
Nov. "	456.5	40.8	415.7
Dec. "	431.9	53.9	378.0
Jan. 1947	398.7	43.8	354.9

be seen from the analysis of her imports in 1946, these resources were not squandered, but were used to pay for legitimate imports. The answer to any possible contention that such imports could have largely been paid with exports, if a proper exchange rate had been fixed, is to be found some paragraphs back.

By January 1, 1948, UNRRA supplies will be stopped entirely.[14] All loans from the Export-Import Bank have either been or will soon be spent in buying the capital equipment for which they have been contracted. Although figures later than January, 1947, are unavailable, it can be readily estimated, according to the rate at which China has been obliged to make use of her U. S. dollar assets to meet legitimate requirements, that there is now very little left. Yet she needs foreign exchange to pay for the necessary imports, with which domestic prices may be stabilized, and not merely as a reserve for any new currency that may be issued in redemption of the depreciated *fapi*. In other words, the foreign currency will not be left idle in New York or London, to be drawn upon only when it is required to prevent excessive exchange fluctuations, but a large portion should be used in payment for additional imports. If sufficient foreign exchange is available, import quotas and import licenses can all be abolished, reserving, perhaps, a ban on the luxury goods in Schedule IV. China should not be satisfied with maintaining her volume of trade at something like the level of 1946, but should and needs to considerably raise that level.

Even when such credits are made available, it does not mean that a fundamental equilibrium in the balance of payments will be soon attained. In the first place, production has to be considerably increased so that dependence will not be placed, for more than a limited period of time, on foreign credits for the payment of large import surpluses. Exports should be gradually increased, as well as other items of inpayments, wherever possible. Secondly, it will take some time to adjust the price-income-cost structure, first to a stabilized currency and then to increased production.

When prices are fairly stabilized, China will be in a position to fix the par value of her currency, and make use of the facilities of the International Monetary Fund. That will help in correcting any temporary disequilibrium. Since fundamental equilibrium as well as steady trade expansion depends on her own productive capacity, an equally important thing is to obtain foreign capital for economic reconstruction and development. This capital may be furnished in several different forms, as loans from individual countries or from the International Bank, or as business investments. However, the ultimate source will be the United States, since she is the only country that has money to lend, and American currency is desired by all nations.

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[14] UNRRA supplies amounted in value in 1946 to 399,231,335,000 Chinese dollars, or approximately 22 per cent of all her imports (regular imports plus UNRRA and Lend-Lease supplies), according to the *Monthly Returns of the Foreign Trade of China*, Shanghai, December, 1946, in which the totals for the whole year are given.

BUSINESS INVESTMENTS

Business investments have one advantage over loans, because they do not involve fixed charges in the form of amortization and interest payments. This advantage is generally recognized, and is of great importance to China. But the capital importing country can only create conditions to encourage such investments; it cannot take any initiative in the matter. The amount that will be so invested will also be out of its control. If there should be heavy investments in a few years, followed by a lapse, withdrawals of profits in the latter period may constitute an outpayment equivalent to, or even larger than, new investments in the same period. This was what actually happened to China during 1928–30. (The figures for such withdrawals and new investments are given in Table VI in the preceding chapter.) Although loans might produce a similar situation, the receiving country knows beforehand when heavy outpayments on their services will be due and can make preparations for them.

By the foregoing remarks I do not mean to say that China should not welcome business investments, but only to point out their shortcomings as well as their advantages, because the former seem to have never been mentioned by anyone who has discussed this question.

Since general stabilization in China will most likely start in the areas south of the Yangtze River, projects of reconstruction must necessarily be on a regional basis. These projects may be carried out either with foreign business investments or foreign loans. In fact, in view of the semi-independent character of the various economic regions in the country, prices vary considerably, and in some regions they are much less unstable than in others.

One instance will make my point clear. When the price of rice was $50,000 a picul in Shanghai, that in Tahsien—a small town in Szechuen—was less than $3,000. Many other instances have been mentioned in Chapter V. The inadequacy of transportation facilities has created many water-tight compartments in the country, so that prices, like water, may stand at a high level and rise at a violent rate in certain compartments without much effect on certain others.

For these reasons, some Chinese economists advocate immediate execution of reconstruction projects in certain regions. The provinces of Hunan and Kiangsi, for instance, are as far from the fighting area in Shantung and Hopei as are Spain or Portugal from Germany or Austria. These provinces have rich natural resources, and developmental projects can be more easily carried out there. If foreign investors or the International Bank should be interested in such projects, it is not impossible, even before there is general stability, to keep these provinces free from unnecessary interference. The currency in these provinces is of course also *fapi,* but if loans are made, agreements may provide that the foreign investors be repaid in foreign currency. In fact, all previous foreign loans to China have been so made. If amortization on such loans does not begin too early, China will have sufficient foreign exchange for the purpose, especially if the projects should result in an increase of exports. In these two provinces, for instance, the exploitation of antimony and tungsten deposits would be suitable projects of this nature.

Some people would suggest Taiwan for regional development. It has the advantage of having a separate currency, but it would not be closely linked with the economic development of the whole country, as would Hunan or Kiangsu. For instance, Hunan and Taiwan are both rice-producing centers, but if more rice is produced in the former province, it can be supplied to many parts of China at lower transportation costs than from Taiwan. This does not mean that I would not agree to any development of Taiwan; but only that it should not be the sole region which should be so developed.

Since the immediate object of all measures is to stabilize prices, certain points should be emphasized. Although the heavy industries are important for economic reconstruction, the pressing need is for the light industries and their products. Their prices directly affect the lives of the people. Hence, the early projects should emphasize the establishment of factories in the former category, as well as power plants and transportation facilities. These will produce goods for immediate consumption, or facilitate their production and distribution. Another consideration is that expenditures in Chinese currency in connection with their establishment should be kept proportionately small, so as to avoid, as far as possible, any effect on domestic prices.

At the same time, of course, certain domestic measures must be carried out to make the foreign financial assistance effective, and to ensure that every cent of the foreign exchange so obtained will be applied to the purposes for which it is intended. Detailed discussion of such measures is to be found in an earlier chapter.

When adequate foreign financial assistance is available, both trade and exchange control should be greatly relaxed. There are also certain general conditions which are necessary to attract foreign investments in the long run, and others to insure that such investments will promote the economic development of the country and the welfare of the people. In the Economic and Social Council of the United Nations, the Chinese Delegation proposed in September, 1946, the adoption of a code governing such investments, which would be of mutual advantage to both the investors and the capital-exporting country on the one hand, and the enterprises and the capital-importing country on the other. It had the support of the American and several other Delegations, and was referred to the Sub-Commission on Economic Development as the starting point of its work. Let us see how such a code would guarantee the necessary conditions for attaining the end mentioned above. The following discussion will not be confined to the question of private foreign investments, but public loans will also be touched upon.

A SUGGESTED CODE FOR FOREIGN INVESTMENTS

In the capital-importing country, there must, first of all, be adequate legal protection of foreign persons and property. This is of course the fundamental condition, and it excludes any expropriation or nationalization of foreign enterprises without full compensation. So far as China is concerned, she has never adopted any such unjust measures, and she is perfecting her laws to afford fuller protection to private enterprises, both Chinese and foreign. In the new Company Law promulgated on April 12, 1946, there is a chapter on foreign companies, which describes the procedure by which such companies, if properly incorporated in their own countries, may obtain certificates of authority from the Chinese Government and then transact business or establish branch offices in China. They shall enjoy the same rights and obligations as domestic companies.[15] This may not apply to those companies whose country does not admit Chinese companies. The word "may" is used instead of "shall" in the law, which shows that, even in the latter case, exceptions may be made.[16] Similarly, a foreign company is entitled to purchase and

[15] *Chinese Company Law,* Articles 296 and 297.

[16] *Ibid.,* Article 293.

hold land necessary for the transaction of its business provided that its own country grants the same rights and privileges to Chinese companies.[17] These provisions are based on the principle of reciprocity, and do not therefore constitute any discrimination against foreign investors. In the new Treaty of Friendship, Commerce and Navigation between China and the United States, signed on November 4, 1946, the same principles of reciprocity and national treatment are expressly stated. When a code governing foreign investments is formulated, these principles should naturally be included.

The second condition is that the enterprises in which foreigners invest must offer prospects of reasonable profit. Since different enterprises will be profitable in different degrees at different times, and since no one can guarantee profits to all concerns, the important thing for the government of the capital importing country to do is to avoid all measures that will unreasonably reduce their profitability. Onerous taxes and the fixing of unreasonably low rates for public utilities will come under this heading. Some people believe that taxes should be based on true net income, but a reasonable rate, even based on the volume of turn-over, if determined in advance and not subject to frequent modifications and wide fluctuations, will, in my opinion, be equally satisfactory.[18] So long as the investor knows beforehand the amounts of profit he can reasonably expect from various enterprises, he can make his choice accordingly.

Foreign investors are also anxious about the possibility of withdrawing their profits, and in some cases their original investments, and transfer facilities must be provided. Since the International Monetary Fund will help provide such facilities and also has specified the conditions under which control of capital transfers may be exercised by its members, this question is of no great importance except where the government of a capital importing country intentionally puts obstacles in the way of such transfers.[19] Although China has not yet availed herself of the facilities of the Fund, she will certainly not adopt such measures to discourage foreign investments.

However, China does not have sufficient foreign exchange resources to provide transfer facilities unconditionally, nor does the International Monetary Fund. With regard to the withdrawal of profits, the condition should be that, whatever liquid funds are remitted to China for investment, either at the beginning or after the enterprise has been established, the foreign exchange which they represent should, as long as there is exchange control in the country, be surrendered to the banks designated by the Chinese Government for such purposes. This also applies to interest payments on loans to private firms in China, whether they are purely Chinese firms or mixed companies with both Chinese and foreign capital. In the case of withdrawal of the original investment, which will most likely consist to a large extent of capital equipment, some distinction should be made as to the nature of the enterprise. If it produces goods necessary to the economic reconstruction and development of the country, the Chinese Government should, subject to the above requirement and the general control of capital transfers provided for in the Fund Agreement, offer the facilities required. But, if the enterprise produces luxury goods, such withdrawals will amount to sales of the non-essential equipment to Chinese capitalists. The latter will naturally not buy it unless the business is profitable, but profitability to private entrepreneurs does not necessarily justify an allotment from China's limited foreign exchange resources for the payment of the equipment. China would be within her rights to specify that withdrawals of this nature, either in the case of original direct investment or of the principal of loans, should at least extend over a certain number of years, or that such enterprises should be excluded from the field of foreign investment altogether. Although at present foreign loans will not be made to private Chinese companies unless the Government guarantees their amortization and interest payment, yet foreign firms in China will be able to sell their bonds to foreign investors without such guarantee, and the question of transfer will be involved.

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[17] *Ibid.*, Article 298.

[18] *Conditions of Private Foreign Investment,* a pamphlet published by the League of Nations, Columbia Press, New York, 1946, p. 35.

[19] Agreement of the International Monetary Fund, Article VI.

It has also been suggested that, when the tax is based on true net income, that part of the taxable income which is effectively invested in plant and equipment should be exempted from taxation.[20] This would certainly be good policy, but being in the nature of policy, it will have no place in the code.

In the case of loans, there should be adequate guarantee that amortization and interest payments will not be in arrears. In itself, the best guarantee will consist of making loans for productive purposes only, where the projects will yield by themselves sufficient returns to meet the payments promptly. The provisions of the International Bank Agreement concerning this matter may serve as a model, although where a lender, for special reasons, is willing to adopt a more generous attitude, there should be no objection to his doing so. During the war, in spite of her complicated economic problems, China was not in arrears in services on foreign loans, except in the cases of some pre-war loans, where negotiations concerning a resumption of amortization and interest payments, according to revised schedules, had not been concluded. The code should, however, provide that no control over the property or the enterprise by a foreign creditor is to be countenanced.

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[20] *Conditions of Private Foreign Investment, op. cit.*, p. 42.

The government of the capital exporting country, for its part, must "not intervene in favor of its nationals whose conduct does not conform to internationally acceptable standards." [21] This is a very good principle, and may be combined with a provision of the Agreement of the International Bank for Reconstruction and Development that "the Bank and its officers shall not interfere in the political affairs of any member; nor shall they be influenced in their decisions by the political character of the member or members concerned." [22] In short, the code should provide that, in the matter of all loans and investments, no political pressure should be exercised nor any political consideration be taken into account.

However, it is not sufficient to emphasize only economic considerations; all loans and business investments should contribute to the economic development of the capital importing country, and the welfare of its people. This principle has many aspects. Unfair competition, on the part of large and heavily capitalized foreign firms with native enterprises, will do more harm than good to the capital importing country. If the private investment involves the development of natural resources, the investor should not exhaust such resources for the sake of quick returns. Nor should it adopt restrictive practices which will hinder the development of the country concerned. In general, it should also help to raise labor standards instead of keeping them down. On the other hand, if the particular resources developed by the foreign firm are very limited, the capital importing country should also allow the firm to set aside reserves against capital expenditure.

The government of the capital exporting country should receive exports from the capital importing country, because it is in this way only that loan services and withdrawals of profits from private investments can be met. It would be unreasonable to expect the latter country to fulfill its obligations when there are restrictions or high tariffs on exportable goods.

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[21] *Ibid.*, p. 45.

[22] Agreement of the International Bank, Article IV, Section 10.

Since the capital importing countries usually need the inventions of the more industrialized nations, the code should provide for reasonable rates of royalties on patents. They should be no higher than those charged to nationals of the country in which the inventions have been patented.

When loans are made to a foreign country, whether it is a government or a private enterprise, the interest rate and the schedule of amortization must be reasonable and within the power of the borrower to carry out. If there be any unexpected default, in good faith, the lender should agree to some arrangement based on actual transfer capacity, taking into account the facilities which the International Monetary Fund offers to its members.

Certain steps have to be taken jointly by both capital exporting and capital importing countries, by which double taxation may be avoided. As a matter of policy, the latter countries should encourage the formation of mixed companies, in which both foreign and domestic investors may participate. Although the Chinese Government formerly had certain restrictions on the amount of foreign capital and the number of foreign directors in such companies, these have been abolished. In the case of the capital exporting countries, the formation of subsidiary companies in foreign lands should be encouraged, so that they may be better integrated with the economy of the capital importing country. If these subsidiary companies should welcome participation by local investors, no obstacles should be put in their way.

While the above suggestions do not differ much from the proposals made by the special joint committee of the Economic and Financial Organization of the League of Nations, an attempt has been made to distinguish between certain principles which should be included in the code, and certain matters of policy which should be left to the judgment of the individual countries concerned. The conditions under which such policies should be carried out have also been discussed, as well as the attitude of the Chinese Government with respect to both principle and policy.

CONSIDERATIONS PECULIAR TO CHINA

Besides the above considerations, there are other conditions which affect foreign investments in China in particular. The question of economic stability has already been discussed in connection with short-run developments in the country, and need not detain us here. Several post-war developments which are favorable to foreign investments in the long run should be borne in mind in discussing China's post-war economic reconstruction.

In the first place, the abolition of extra-territoriality is definitely a favorable factor, although some foreigners, not familiar with Chinese law and legal administration, may express doubt about the matter. When the foreign powers retained such extra-territorial rights, the domicile of their business in China was, except in the case of special concessions made by the Chinese Government in connection with mines or railways, limited to the few treaty ports, and a few other cities where the Chinese Government had voluntarily allowed foreign firms to do business. This applied particularly to manufacturing industries. Remer, in his *Foreign Investments in China,* reached the conclusion that China's capacity to receive was very small.[23] It was the natural result of this system of extra-territorial rights. Instead of extending to the whole country, China's pre-war capacity to receive was limited to these few ports and cities. In 1931, for instance, according to this study, "about 65 per cent of American business investments in China are in the single port of Shanghai," and "of the 213 firms (which provided him with satisfactory information), 146 have offices in Shanghai." [24] A similar situation held true of other countries, especially Great Britain, of whose investments in China a fairly exhaustive study was made in the same year.[25] It showed very clearly how the Unequal Treaties limited the field to a few cities, of which Shanghai was the most important. With the abolition of such treaties, the whole of China is now thrown open to foreign investments, and her capacity to receive will naturally be much larger.

A second consideration is the elimination of Japan as one of the principal countries which will invest in China. In 1931, British investments constituted 36.7 per cent of all foreign investments in China, and Japan ran a close second, with 35.1 per cent.[26] Since that year, if Manchuria is included, Japanese investments probably occupied the first place. Now, after the war, the latter country will no more be in a position to invest abroad, and since the Chinese Government is either selling the Japanese enterprises in China forthright, with the exception of the heavy industries and public utilities, or asking for public subscriptions to them, other foreign investors may take the place of the Japanese.

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[23] Remer, *Foreign Investments in China, op. cit.,* p. 231.

[24] *Ibid.,* p. 282.

[25] Lieu, *Foreign Investments in China,* a preliminary data paper to supply data for Remer's book. (Published under the joint auspices of the Institute of Pacific Relations, the Social Science Research Council of New York, the Brookings Institution of Washington, D. C., and the Bureau of Statistics, Legislative Yuan, of Nanking, 1929.)

[26] Remer, *op. cit.,* p. 76.

The restoration of Taiwan to China also opens up a new field. There are 42 sugar refineries and many other enterprises there which the Chinese Government has decided to turn over to private investors. In addition, many new enterprises may be established there, especially if a plan for regional development is to be carried out.

If foreign investors are not directly interested in investments in China, the International Bank has now provided a means for indirect investments. It will make loans to the governments as well as to private enterprises of its members, and may sell its own securities on the market.[27] Participation by private investment houses may sometimes be invited by the Bank in making such loans.[28] These will provide additional channels for foreign investments to go to China, when the Bank is ready to transact business with her.

Another condition for attracting foreign investments is the extension of transportation facilities in the country. Modern enterprises cannot prosper without such facilities. As has been shown in a preceding chapter, the development of domestic industries has been much influenced by them. The extension of such facilities is in itself an important part of economic reconstruction, but it has also the effect of opening up large territories to foreign investments, and thereby accelerating the progress of economic development.

Still another condition is the existence in China of sound financial organizations. While direct business investments may not have much need for these, since they can make use of the facilities offered by banks of their own nationalities, such organizations will facilitate the formation of mixed companies promoted by Chinese businessmen, as well as the sale of Chinese corporation bonds, when they have a ready market, to foreign investors. It cannot be expected that the latter will be familiar with the Chinese enterprises and know their credit standing, but if some sound financial institution underwrites the issues, they may probably be more easily floated both among Chinese and foreign investors. A banking syndicate including some banks well known to the foreigners, or the Chinese branches of some foreign banks, will be more effective in making such arrangements. In the same way, if private enterprises wish to obtain loans from the International Bank, they should first have the support of such a banking syndicate. Then the Chinese Government will know where it stands in guaranteeing the loans for them, according to the provisions of the International Bank.[29]

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[27] International Bank Agreement, Article III, Section 4, and Article IV, Section 8.

[28] *Ibid.*, Article IV, Section 1.

The question of the code will be brought up for discussion at the first meeting of the Sub-Commission on Economic Development in October of 1947, and at the suggestion of the American Delegation to the Geneva Conference, there may also be a Committee on Economic Development and Investment in the I. T. O. which will consider this matter. If the members of the U. N. can agree on such a code, it will be of great benefit to both the capital-importing and capital-exporting countries. As the original sponsor of this idea, China naturally hopes that such an agreement will be possible, and her economic reconstruction and development will be promoted with foreign investments made in consonance with the spirit of justice and fair play.

[29] International Bank Agreement, Article III, Section 4, paragraph (i).

APPENDICES TO CHAPTER II

APPENDIX I

1947 Population Census of China

		Male	Female
GRAND TOTAL	461,006,285	241,485,555	219,520,730
Sex Ratio 110.01 : 100			
Province			
Kiangsu	36,052,011	18,745,652	17,306,359
Chekiang	19,942,112	10,595,121	9,346,991
Anhwei	21,705,256	11,501,405	10,203,851
Kiangsi	12,725,187	6,585,263	6,139,924
Hupeh	21,034,463	11,052,418	9,982,045
Hunan	26,171,117	13,693,880	12,477,237
Szechuen	47,107,720	24,151,127	22,956,593
Sikiang	1,651,132	831,554	819,578
Hopei	28,529,089	15,375,365	13,153,724
Shantung	38,671,999	19,192,467	19,479,532
Shansi	15,025,259	8,220,320	6,804,939
Honan	28,473,025	14,632,363	13,840,662
Shensi	9,492,489	4,990,576	4,501,913
Kansu	6,897,781	3,579,655	3,318,126
Chinghai	1,346,320	683,802	662,518
Fukien	11,100,680	5,744,766	5,355,914
Taiwan	6,126,006	3,077,606	3,048,400
Kwangtung	27,825,512	14,828,510	12,997,002
Kwangsi	14,603,247	7,627,723	6,975,524
Yunnan	9,171,449	4,612,951	4,558,498
Kweichow	10,518,765	5,247,129	5,271,636
Liaoning	9,992,387	5,142,613	4,849,774
Antung	3,163,911	1,715,614	1,448,297
Liaopei	3,798,056	1,969,042	1,829,014
Kirin	6,981,277	3,787,574	3,193,703
Sungkiang	4,535,092	2,561,014	1,974,078
Hokiang	1,936,000	1,009,500	926,500
Heilungkiang	2,563,234	1,440,754	1,122,480
Nunkiang	2,407,438	1,387,506	1,019,932
Hsingan	327,563	184,026	143,537
Jehol	6,109,866	3,217,455	2,892,411
Chahar	2,114,288	1,152,984	961,304
Suiyuan	2,166,513	1,212,119	954,394
Ninghsia	773,325	422,637	350,688
Sinkiang	4,012,330	2,118,705	1,893,625
Tibet	1,000,000	650,000	350,000
Cities			
Nanking	1,037,656	609,391	428,265
Shanghai	3,853,511	2,162,119	1,691,392
Peiping	1,602,234	925,249	676,985
Tientsin	1,679,210	970,591	708,619

Cities—continued		Male	Female
Tsingtao	752,800	423,438	329,362
Chungking	1,000,101	579,354	420,747
Dairen	543,690	358,736	184,954
Harbin	760,000	481,917	278,083
Hankow	749,952	397,886	352,066
Canton	1,276,429	671,157	605,272
Shengyang (Mukden)	1,175,620	645,447	530,173
Sian	523,183,	319,074	204,109

NOTE: These figures are given out by the newly organized Census Bureau of the Ministry of the Interior, and published in all newspapers in China as well as the *Chinese Journal* of New York. In the latter they were published in four installments appearing on August 16, 18, 19 and 20. In an explanatory note obtained directly from the Bureau, the latter gives the dates when the figures were reported, as follows:

1. The following were investigated and reported in various months in the first half year of 1947:
   42 *hsien* in Kiangsu
   47 *hsien* in Chekiang
   All except one *hsien* in Anhwei
   All except one *hsien* in Kiangsi
   All except 36 *hsien* in Kwangtung
   All except 13 *hsien* in Sikiang
   The whole province of Kansu
   The whole province of Kwangsi
   The whole province of Fukien
   The whole province of Kweichow
   The whole province of Ninghsia
   Part of Jehol comprising 2,700,000 people
   All except 6 *hsien* in Chinghai
   Taiwan (Formosa)
   All except 2 *hsien* and parts of 7 *hsien* in Liaoning
   Part of Antung which is under National Government administration
   All except 6 *hsien* and the "banners" in Liaopei
   2 cities in Kirin
   The whole of Sungkiang province
   The whole of Nunkiang province
   The cities of Nanking, Shanghai, Peiping, Tientsin, Tsingtao, Chungking, Shengyang, Canton, Hankow and Sian.
2. The following were investigated and reported in 1946:
   30 *hsien* in Chekiang
   The whole province of Hunan
   All except 7 *hsien* in Hupeh
   All except 24 *hsien* in Shensi
   All except 30 *hsien* in Yunnan
3. The following are based on *pao-chia* reports:
   4 *hsien* in Kwangtung
   6 *hsien* in Chinghai
4. The population figures of all other provinces, *hsien* and cities are estimates based on earlier figures, data of local origin or those of the puppet Manchukuo (the last applies to the nine provinces of Liaoning, Kirin, Liaopei, Sungkiang, Nunkiang, Hsingan, Heilungkiang, Hokiang and Antung). We have translated the term *cha-pao* into "investigate and report," instead of "enumerate and report," because it is doubtful if complete enumeration could be so extensively carried out under the present circumstances. However, as it is stated that *pao-chia* figures are used only for a few specified *hsien,* the investigation seems to have gone beyond the collection of *pao-chia* figures. "Banners" are the organizations of native Manchurians which are not included in the *hsien.*

APPENDIX II

China's Mineral Resources and Production

Mineral	*Production in 1942*[a] *(metric tons)*	*Reserve*[b] *(metric tons)*
Coal	65,685,997	265,331,000,000[c]
Petroleum	841,538	206,000,000[d]
Iron ore	17,633,149	2,151,000,000
Manganese ore	500	29,389,000
Wolfram ore	11,965	2,035,000
Molybdenum ore	6.7	...
Copper (in terms of copper and not copper ore)	1,098	967,000
Lead ore	2,724	...
Zinc ore	4,357	...
Bauxite	500,000	113,000,000
Alum	10,822	...
Gold (in *shih-liang*)[e]	322,540	...
Silver (in *shih-liang*)	35,397	...
Tin	7,880	...
Antimony ore	...	3,803,000
Antimony regulus	5,063	...
Mercury	166.6	...
Salt	5,197,914	...
Gypsum	37,900	...
Natural soda	36,200	...
Sulphur	1,981	...

[a] *General Statement of the Mining Industry,* 7th issue, published by the Geological Survey of China, Chungking, 1945, pp. 4-6. Figures for tin are taken from p. 146 of the same publication.

[b] *Ibid.,* pp. 1-2.

[c] Total reserve of anthracite and bituminous coal and peat.

[d] Shale oil not included.

[e] 1 *shih liang* is equivalent to 1/32 of 1 kilogram.

NOTE: In addition to these minerals, China has, excluding Sinkiang and Tibet, 64,694,000 kw. of water power. (*Chinese Year Book, 1944–45,* China Daily Tribune Press, Shanghai, p. 645.)

APPENDIX III

National Income

	1931	*1932*	*1933*	*1934*	*1935*	*1936*
Agriculture	13,579	14,931	12,271	10,304	13,173	16,926
Mining and Metallurgical Industries	257	234	238	241	258	294
Manufacturing	1,875	1,820	1,838	1,765	1,948	2,408
Construction	200	139	221	260	190	195
Transportation and Communications	980	885	922	996	1,053	1,045
Commerce	3,989	2,718	2,541	2,286	2,236	2,566
Banking and Finance	176	176	200	235	251	294
Housing	864	902	934	959	952	917
Professional Services	324	321	312	296	273	302
Public Administration	725	635	642	918	835	1,001
Total	23,149	22,761	20,119	18,260	21,169	25,948
Deductions [a]	153	153	173	203	217	254
Income Produced	22,996	22,608	19,946	18,057	20,952	25,694
Net International Receipts	216	989	98	337	341	1,214
Disposable Income	23,212	23,597	20,044	18,394	21,293	26,908

[a] The deductions consist of the incomes obtained by banks and other financial institutions from the other industries, etc. Like Dr. T. C. Liu's and my own, Mr. Ou's estimates are mainly based on statistical data of 1933, from which the national income of that year is arrived at. Figures for the other years are obtained by modifying the 1933 estimates with whatever data are available for these other years, especially price data.

NOTE: National Income Produced and Disposable Income; estimates made by Mr. P. S. Ou of Academia Sinica, in million pre-war dollars.

APPENDIX TO CHAPTER V

Conditions in the Manufacturing Industries in 1947

NOTE: Since the completed manuscript was sent to the printer, many newspaper clippings have been received which give information about industrial conditions in Shanghai, and, in some cases, in other parts of China also. Of special interest is a series of investigation reports compiled by the Shanghai Bureau for the Promotion and Guidance of Industry and Commerce of the Ministry of Economic Affairs, and published in the *Commerce Daily* in Shanghai. The Bureau was established towards the end of 1946, and the investigations were made from time to time in the first half year of 1947. It is regrettable that the clippings are, apparently, incomplete, since some important industries are not covered. The reports are abstracted and reduced to figures wherever possible, and some minor industries given in the clippings are not abstracted because their production is too insignificant. In addition, the clippings also include several articles giving factual information about the manufacturing industries. Some of them are written by those engaged in the business, others by special investigators or correspondents of the newspapers. Although the combined data do not cover the whole range of all manufacturing industries, they will give some idea of the post-war conditions of these industries, which is not mentioned in the text of this volume. The dates in brackets under the names of industries investigated by the above-mentioned Bureau are the dates of the *Commerce Daily* in which the reports appeared, while in the case of newspaper articles, the names of the papers are added. The information concerning rubber, paper, cement, etc., is taken from a single article which appeared in *Ta Kung Pao* of June 12, 1947.

A. FROM REPORTS OF THE SHANGHAI BUREAU FOR THE PROMOTION AND GUIDANCE OF INDUSTRY AND COMMERCE

Cotton Spinning and Weaving Industry
(June 2, 1947)

This is limited to cotton spinning mills which usually also have weaving looms. Those which only weave cotton fabrics are excluded. There are altogether 2,082,102 spindles, of which the China Cotton Textile Corporation has 887,364 and those operated by private firms 1,194,738 spindles. If all mills could operate 20 hours a day and 26 days a month, the total monthly production would amount to 105,144 bales of yarn. As the Shanghai Power Company is unable to supply sufficient power, and as the spinning equipment is old and has to be repaired frequently, actual production is 84,000 bales. Similarly the maximum productive capacity of cotton cloth is 3,314,000 bolts, but actual production is only 2,013,466 bolts. The industry may still be considered as operating at full blast under these conditions.

Dyeing Industry
(March 21, 1947)

There are 12 large factories and over 30 small ones. Their combined maximum daily production is approximately 1,000 barrels, but for lack of raw materials, their actual production is only about 300 barrels, or about one-third of their capacity. However, some of the larger firms are able to produce at 50 per cent of their capacity.

Industry	*Factory*	*Annual Production*	*Remarks*
Hydrochloric Acid (July 28, 1947)	Tien Yuan	1,000 tons	Production of the company's Shanghai plant only.
	Tien Chung	300 tons	
	Chao Hsin	. . .	Although its production is large, the process used is obsolete.

Industry	*Factory*	*Annual Production*	*Remarks*
Nitric Acid (July 28, 1947)	Tien Li	3,600 tons	Being rehabilitated.

Some smaller firms are producing this acid from sodium nitrate.

Industry	*Factory*	*Annual Production*	*Remarks*
Sulphuric Acid (July 28, 1947)	Kiangsu	4,000 tons	A foreign factory whose actual production is at present approximately 2,000 tons a year.
	Kai Chen	5,400 tons	Being rehabilitated.
	Sin Yeh	3,000 tons	Being installed.

There are altogether over 30 factories scattered all over the country, some of which are not in operation. If those which are being operated, especially the larger ones, were in full operation, the total supply would be 200,000 tons.

Industry	*Factory*	*Annual Production*	*Remarks*
Caustic Soda (July 28, 1947)	Tien Yuan	600 tons	The company's Chungking and Yiping plants produce 1,440 tons.

Outside Shanghai the Chi Pei plant of Hanku produces 250 tons; Chung Fang of Tsingtao can produce 450 tons (in process of installation); Kao Hsiung, 2,000 tons; Tai Nan, 1,000 tons; Yung Li, at Tangkü, 2,400 tons in addition to 36,000 tons of soda ash. The Szechuen plant of Yung Li has stopped operations.

Industry	*Factory*	*Annual Production*	*Remarks*
Oxygen (July 20, 1947)	Chungkuo Kungyeh	100,000 cu. m.	
	Tung Fang	32,000 cu. m.	
	Ta Hwa	10,000 cu. m.	
Hydro-carbon (July 20, 1947)	Chungkuo Kungyeh	4,000 cu. m.	
	Tung Fang	1,500 cu. m.	
Nitrogen	Chungkuo Kungyeh	400,000 cu. m.	
Soap, etc. (April 23, 1947)			

There are 41 factories, including some foreign plants, which now could produce at maximum capacity 150,000 boxes of laundry soap (each box weighs 47 pounds), 30,000 boxes of toilet soap (each box weighs 30 pounds) and 50,000 pounds of glycerine. In fact, they are producing at only half capacity, because of difficulties in obtaining raw materials.

Vegetable Oils:

Industry	*Factory*	*Annual Production*	*Remarks*
Bean oil	Chinese Vegetable Oil Corporation	78,720 *shih tan*	One *shih tan* is equivalent to 50 kilograms.
Sesame, Rapeseed or Peanut Oil	Chinese Vegetable Oil Corporation	Between 180,000 and 200,000 *shih tan*	All these are actual production figures. The maximum productive capacity is much larger.
Oil Cake	Chinese Vegetable Oil Corporation	Between 254,000 and 385,000 *shih tan*	

In addition to this corporation, there are at least ten other large oil mills the total productive capacity of which, if raw materials were available in sufficient quantities, would be about 300,000 *shih tan* of bean oil and 1,200,000 *shih tan* of other vegetable oils.

Glassware
(April 9, 1947)

There are altogether 33 factories in Shanghai, the largest of which has a productive capacity of 40 tons a day and the smallest only half a ton. The total daily capacity is 95½ tons. However, because the manufacturers of candy and medicine do not have much business, which reduces their demand for glass bottles, and because of the competition of American glassware, the actual production is only one-seventh of the total capacity.

Enamel ware
(April 1, 1947)

There are 13 factories manufacturing these articles, of which wash basins are the most important. Production is as follows:

	Maximum Productive Capacity	*1946 Actual Production*
Wash basins	1,200,000 dozen	337,567 dozen
Other articles	2,400,000 dozen	746,206 dozen

The low production figure in 1946 was due partly to the insufficient supply of raw materials and partly to reduced demand from foreign countries. Before the war these products were marketed in Burma, Thailand, Australia, the South Sea Islands, and even in Europe.

Celluloid
(April 19, 1947)

There are 63 factories in Shanghai, of which Ta Chung Hwa was able to manufacture celluloid from raw materials. As the supply of some of these materials is not available, this factory has suspended operations. Three other factories, Mei Hwa, Mei Li and Kuo Kwang, manufacture celluloid from old motion picture films. Since the supply of old films is also limited, their production amounts only to between 50 and 80 per cent of their maximum capacity. The production of the other factories, which manufacture articles from celluloid supplied by these four mills or imported from abroad, is similarly affected.

Condiments
(April 14, 1947)

There are 14 factories in Shanghai, of which two have suspended operations. The largest of them is Tien Chu, but its present production is about two-thirds of its maximum capacity. These factories are affected by the competition of imported goods on the one hand, and by the reduced demand in the South Sea Area on the other.

Matches
(March 26, 1947)

There are 24 match factories which have a total maximum productive capacity of 19,000 cases a month, but actual present production is only 13,000 cases. (Each case contains 7,200 boxes of matches.)

Leather
(April 7, 1947)

There are 265 tanneries in Shanghai, with the following production figures:

	Maximum Monthly Production	*Actual Monthly Production*
Sole leather	1,500,000 pounds	300,000 pounds
Other leather	525,000 sq. ft.	105,000 sq. ft.

The production cost of a pound of sole leather is $10,170, but the selling price is only about $8,000, while the selling price of South American leather is about $6,000 and that of Australian leather about $7,000. The Chinese leather is able to sell higher because its quality is better than that of imported sole leather. The quality of Chinese leather for uppers and suitcases is inferior to imported goods, according to an expert of the Shanghai Bureau for the Promotion and Guidance of Industry and Commerce.

Cosmetics
(July 11, 1947)

There are 24 larger factories producing tooth paste, toilet soap, florida water, talcum powder, etc. All of them were operating in July, 1947.

B. From Newspaper Articles

Industry

Wool Spinning and Weaving (March 31, 1947) *(Commerce Daily)*

Of the 20,808 spindles, only 54 per cent is in operation, and of the 1,362 looms only 54 are in operation. The cause, according to the representatives of the industry, is the lack of raw materials.

Flour Milling (May 24, 1947) *(Ta Kung Pao)*

According to a leader of the industry, the pre-war annual production was 75 million bags for the whole country, and 40 million bags for the mills along the Shanghai-Nanking Railway. Because the wheat crop in 1946 was not very satisfactory, and because there was a lack of transportation facilities, the production of the latter was only about 12 million bags, or 30 per cent of the prewar figure. Since the 1947 crop is better than last year's and transportation facilities are also in better condition, the flour mills are making plans to increase their production.

Rubber (June 12, 1947) *(Ta Kung Pao)*

There are 72 rubber factories in Shanghai, of which Ta Chung Hwa is the largest, and produces rubber tires. The others produce mainly rubber shoes and over-shoes. Since there is not much competition from imported goods, this industry is quite prosperous.

Paper (June 12, 1947) *(Ta Kung Pao)*

There are 18 factories in Shanghai and 8 in other cities, the total maximum production of which is 10,000 tons a month. As the supply of pulp is insufficient, these mills have used rags and waste paper as materials, and their production is less than one half the maximum capacity.

Cement (June 12, 1947) (*Ta Kung Pao*)

There are 18 cement mills in the whole country, with a total maximum daily capacity of 14,178 tons. At present the production is about one-third of that figure. Three of the mills are in Shanghai, with a maximum capacity of 250 tons. The reduced production is due to lack of gypsum and other materials.

Paint and Varnish (June 12, 1947) *(Ta Kung Pao)*

There are 32 factories in Shanghai producing paint, varnish, rust-resisting paint, wall paint, enamel, printer's ink, etc. The total productive capacity is about 2,000 tons per month, but, for lack of certain raw materials, the actual production is only about 600 tons.

Alcohol (June 12, 1947) *(Ta Kung Pao)*

There are six distilleries, of which two have suspended operations. A third one was originally a Japanese mill taken over by the Chinese Government, operated for a short while, but, according to the Government's decision to turn over most industries to private firms, is now being sold. If all mills were in operation, the total daily production would be more than 10,000 gallons.

Canning (June 12, 1947) *(Ta Kung Pao)*

There are 15 canneries in Shanghai, but in 1946, because large quantities of canned food came from abroad, all of them had to stop operations. This year they are gradually reviving their business, but due to the limited supply of tin plate, they have little chance of complete revival.

Cigarettes (June 24, 1947) (*Ta Kung Pao*)

Shanghai has 73 cigarette factories, which produced 850,000 cases in 1946. In April 1947, production increased to 123,000 cases in one month, but since then it has declined. In May the number of mills in operation decreased to 55 and production declined to 94,000 cases. Only 32 mills kept up operation in June, producing even less. There are many reasons for the decline.

(1) It is near the hot and rainy season, when cigarettes are easily spoiled if kept in stock.

(2) Reduction of demand from North China due to the fighting, and in South China due to smuggling of imported cigarettes from nearby islands.

(3) Rising cost of tobacco, cigarette paper and tin foil, as well as higher wages.

(4) Competition of the British American Tobacco Company in China, which has a much larger capital than most Chinese factories. The latter have to borrow their working capital at very high interest rates, thus increasing their cost of production.

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